

START

9513381-2048

0041908

106
D

**Fifth Amendment
to the
Hanford Federal Facility
Agreement and Consent Order**

July 1995

by

**Washington State
Department of Ecology**

**United States
Environmental Protection Agency**

**United States
Department of Energy**

1944

**THIS PAGE INTENTIONALLY
LEFT BLANK**

**Hanford Federal Facility
Agreement and Consent Order**

WASHINGTON STATE
MAILED

Fifth Amendment

July 1995

by

**Washington State
Department of Ecology**

**United States
Environmental Protection Agency**

**United States
Department of Energy**

**THIS PAGE INTENTIONALLY
LEFT BLANK**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 10
 AND THE
 STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

IN THE MATTER OF:

The U.S. Department of Energy,
 Richland Operations Office,
 Richland, Washington

)
) FIFTH AMENDMENT OF
) HANFORD FEDERAL FACILITY
) AGREEMENT AND CONSENT ORDER

Respondent) EPA Docket Number: 1089-03-04-120
) Ecology Docket Number: 89-54

In accordance with Article XXXIX of the Hanford Federal Facility Agreement and Consent Order ("Agreement") the Parties hereto agree to the attached amendments to the Agreement.

The approval of this Amendment further constitutes approval of the following Agreement change requests which are attached as part of this Amendment.

- M-80-94-01 Establish milestones and target dates for PUREX and UO3 Facility Transition, Milestone Series M-80.
- M-81-94-01 Establish milestones and target dates for the Fast Flux Test Facility (FFTF) transition, Milestone Series M-81.
- M-83-94-01 Establish milestones for the Stabilization of Process Areas in PFP, Milestone Series M-83.
- M-89-94-01 Complete closure of non-permitted Mixed Waste (MW) units in the 324 Building Radiochemical Engineering Cell (REC) and High Level Vault (HLV).
- M-20-94-01 Milestone M-20-00 Modifications (1994 Facility Transition Negotiations).
- A-94-01 Modify Appendix A To Include Facility Transition Decommissioning Process Terms, Update Environmental Restoration Terms, and Make Other Updates.

Modifications to the Agreement are indicated in the following manner:

~~Language removed from the text of the Agreement is displayed in strikeout mode.~~

Language added to the text of the Agreement is displayed in shaded mode.

ARTICLE XLVIII. COST, SCHEDULE, AND SCOPE INTEGRATION PLANNING AND REPORTING

148. DOE shall take all necessary steps to integrate Hanford programs and to obtain timely funding in order to fully meet its obligations under this Agreement. This shall be accomplished in the following manner:

A. In its annual budget request, DOE shall include estimated funding levels required to achieve full compliance with this Agreement.

B. In the process of formulating its annual budget request, DOE may be subject to target funding guidance directed by the Office of Management and Budget (OMB). When DOE's target budget case differs from its full compliance funding case, the Parties agree to attempt to reach agreement regarding workscope, priorities, schedules/milestones, and Activity Data Sheet (ADS) funding levels required to accomplish the purpose of the Agreement, provided satisfactory progress has been made in controlling costs in accordance with the cost efficiency initiatives. These discussions shall be conducted before DOE-RL submits its annual budget request and supporting ADSs to DOE Headquarters (DOE-HQ) under signature of the DOE-RL manager.

C. DOE-RL will submit its budget request with detailed ADSs, identifying both target and compliance funding levels, to DOE-HQ and identify any unresolved issues raised by Ecology and EPA. If these issues are not subsequently resolved prior to DOE's submission of its budget request to OMB, DOE-HQ will also identify these issues and the funding required for compliance to OMB.

D. In determining the workscope, priorities, and schedules, the Parties shall consider the values expressed by the Hanford stakeholders.

E. The Parties recognize that successful implementation of this Agreement is dependent upon the prudent use of resources, and that resource requirements and constraints should be considered during the work planning, budget formulation, and budget execution process. To ensure the development of responsible budget requests, consistent with the requirements of this Agreement and applicable federal/state statutes, the Parties will work cooperatively and in good faith.

149. The purpose of this paragraph is to establish a mechanism that will help assure adequate progress toward meeting the requirements of this Agreement. It provides for communication and consultation on work scope, priorities, schedules/milestones, and cost/funding matters. It further provides a means for performance measurement and for early identification of problems which could jeopardize compliance with the schedules and milestones of the Agreement.

A. Within two weeks after DOE Headquarters (DOE-HQ) issuance of Environmental Management planning and/or budget guidance, including target level funding guidance, to the Richland Operations Office (DOE-RL), DOE-RL shall provide a copy of it to Ecology and EPA along with a preliminary assessment of its impacts. DOE-RL shall also provide a copy of its initial contractor budget guidance to Ecology and EPA within two weeks after issuance.

B. EPA and Ecology agree not to release confidential budget information to any other entities prior to submission by the President of his budget request to Congress, unless authorized by DOE or required to do so by court order. DOE shall seek to intervene in any proceeding brought to compel or enjoin the release of this information. If allowed to intervene, DOE shall assert its interest in, and the legal basis for, maintaining the confidentiality of this information.

C. As soon as possible after DOE-HQ issuance of its initial planning guidance but no later than two weeks prior to DOE-RL's submission of

its budget request and supporting Activity Data Sheets to DOE-HQ, Ecology and EPA shall be given: 1) a management level briefing at the ADS level on the budget, including an integrated site-wide assessment of impacts on the requirements of this Agreement; and 2) the opportunity to review, comment and make integrated recommendations on that budget request, including workscope, priorities, schedules/milestones, and five year target and compliance cost/funding projections. DOE-RL shall, to the extent it deems appropriate, revise its budget request and ADSSs, including workscope, to address or resolve Ecology and EPA comments prior to transmittal to DOE-HQ. DOE-RL shall notify DOE-HQ in its budget request of any comments not fully resolved to the satisfaction of all Parties, and shall identify full compliance funding levels.

D. Within 30 days after the President's submission of the budget to Congress, DOE-RL shall brief Ecology and EPA on the President's budget request at the ADS level detail. At this briefing, DOE-RL shall notify Ecology and EPA of any differences between the target and compliance case workscope and cost/funding levels submitted in accordance with subparagraph C. above, and the actual workscope and funding levels included in the President's budget request to Congress. DOE-RL shall also provide Ecology and EPA its assessment of the impacts such differences may have on DOE's ability to meet milestones, or satisfy other requirements of this Agreement.

E. DOE shall notify and discuss with Ecology and EPA, prior to transmittal to OMB, any budget amendment, supplemental appropriation request or reprogramming request and any corresponding impacts upon the workscope, and schedules, and DOE's ability to meet milestones, or other requirements of this Agreement with and without the amendment, supplemental appropriation or reprogramming request.

F. Within 30 days after congressional budget appropriation, DOE-RL shall brief Ecology and EPA on the budget appropriation and subsequent funding allocations for the new fiscal year at ADS level detail. If there is a delay in congressional appropriation after the start of the fiscal year, DOE-RL shall inform Ecology and EPA of any congressional continuing resolution action, and the potential impacts, if any, on progress to achieve milestones, and other requirements of the Agreement. Ecology and EPA will be given timely opportunity to review and comment on these budget appropriation and funding allocation actions, and to make recommendations for reallocation of available funds.

G. If the Congressional budget appropriation differs from the funding levels required to comply with any milestones or other requirements of the Agreement, DOE-RL shall take whatever action is appropriate under the Agreement. Such action may include submitting a change request in accordance with the Action Plan, Section 12.0 entitled Changes to Action Plan/Supporting Schedules. The Parties shall attempt to reach agreement on adjustments in workscope or milestones consistent with the Congressional appropriation which will minimize impacts on the requirements of this Agreement. If agreement cannot be reached, Ecology and EPA reserve the right to take appropriate action as provided for in this Agreement.

H. Ecology, DOE, and EPA project managers shall meet periodically throughout the budget execution year to discuss the status of projects to be funded for the current fiscal year, the integration of programs, and events that have affected, or may affect milestones or activity within such milestones.

I. In order to ensure continuing, effective and timely interface between DOE, Ecology and EPA regarding work scope planning/scheduling, program

integration budget/funding, current year performance status, milestone tracking, and notification of problem areas, DOE shall, unless otherwise agreed to, provide the following, or their equivalent, to EPA and Ecology:

1. Annual Multi-Year Program Plans, including ADS level funding projections, as soon as possible after their development;

2. Annual Fiscal Year Work Plans, including ADS level funding profiles, as soon as possible after start of each fiscal year;

3. The monthly Approved Funding Plan (AFP), at ADS level detail, within two weeks following the start of each month;

4. Monthly Site Management System reports shall be provided to EPA and Ecology to identify: any anticipated delays in meeting time schedules, the reason(s) for such delay and actions taken to prevent or mitigate the delay, and any potential problems that may result in a departure from the requirements and time schedules. In accomplishing this, the SMS reports shall, as a minimum, include for each program: monthly and cumulative budget, actual monthly and cumulative costs, performance measurement information including explanations of cost/schedule variances, progress in achievement of milestones, and notification of problems and program/project delays. The appropriate contractor program managers shall sign the monthly Site Management System report. The signature block shall contain the statement: "The information contained within this report is complete and accurate to the best of my knowledge." At the monthly milestone review meetings, the appropriate DOE program manager will provide DOE's assessment of milestone progress and the extent to which DOE agrees or disagrees with the preceding month's SMS report. The assessment will be documented in meeting minutes signed by the three parties. With regard to these assessments, signature of the minutes by Ecology and EPA shall indicate only that the assessment information was provided by DOE. The monthly Site Management System report shall also be placed in the Public Information Repositories as identified in Section 10.2 of the Action Plan.

5. Upon request, EPA and Ecology shall be provided access to available information below the ADS level of detail.

J. During the budget execution year, DOE-RL shall notify Ecology and EPA of any proposed action to internally reallocate funding at ADS levels, if such an action significantly affects workscope, and schedules.

K. Within 30 days following the completion of DOE's annual midyear management review (approximately April-May of each year), DOE-RL shall brief Ecology and EPA on any decisions that significantly affect milestones under this Agreement.

L. As soon as possible following the end of each federal fiscal year, DOE-RL shall provide to EPA and Ecology the fiscal year-end SMS report, and a summary briefing on the amount of funds that have been obligated and spent during the fiscal year ended and the work that has been performed. This summary shall include, at ADS level detail, actual versus planned expenditures for the fiscal year end; a summary of carryover amounts including those available for expenditures in the following budget execution year; and summaries/information explaining the extent of work planned versus work completed or performed during the year.

M. The three parties agree to inform and involve the public and stakeholders at key stages of integrated (cross programmatic) decision making, and at key stages of budget formulation and execution consistent with the Interim Report of the Federal Facilities Environmental Restoration Dialogue Committee. The process for informing and involving the public and stakeholders will be developed and included in the TPA Community Relations Plan.

N. The participation by Ecology and EPA in DOE's planning and budget formulation and execution process shall not affect DOE's authority over its budgets and funding level submission.

3.0 UNIT IDENTIFICATION, CLASSIFICATION, AND PRIORITIZATION

3.1 INTRODUCTION

This section describes what constitutes a waste management unit at the Hanford Site. In addition, it describes how waste management units are classified, prioritized, and grouped for common investigation and remedial response or corrective action, and prioritized.

A waste management unit represents any location within the boundary of the Hanford Site that may require action to mitigate a potential environmental impact. This would include all solid waste management units (SWMUs) as specified under Section 3004(u) of RCRA. These waste management units were previously defined in the Hanford Site Waste Management Units Report (see Section 3.5). Waste management units include the following:

- Waste disposal units (including RCRA disposal units)
- Unplanned release units (including those resulting from spills)
- Inactive contaminated structures
- RCRA treatment and storage units
- Other storage areas.

The parties recognize and agree that certain activities related to the stabilization and transition of facilities, before or after the shutdown decision has been made, through the decommissioning and decontamination (D&D) final disposition of structures by DOE, are subject to RCRA, CERCLA or other regulatory controls related to the Agreement. The generation and/or discharge of (Ecology/EPA) regulated substances or wastes (including the treatment, storage and disposal of those substances or wastes) shall be subject to this Agreement. Appropriate specific requirements and/or Tri-Party Agreement Milestones for the completion of key activities that generate or discharge regulated substances or wastes shall be incorporated into the Action Plan. Agreed-upon key transition, surveillance and maintenance, and D&D disposition activities not subject to Ecology/EPA regulation that are critical path to cleanup of an aggregate area will be established as target dates. The goal is to conduct regulated and nonregulated work in an orderly sequence to insure coordination with other cleanup actions. Section 14.0 defines the process for identification of key Hanford facilities, and the subsequent process for conducting their transition, surveillance and maintenance, and/or disposition. Facilities which are fully dispositioned under the RCRA closure process (see paragraph 3.2), or are dispositioned in conjunction with an operable unit cleanup (see paragraph 3.3), are not addressed under Section 14.0. DOE will enter into negotiations for transition or disposition of key facilities within three months of a shutdown notice or decision to proceed with disposition, respectively. Such negotiations will be completed by the three parties within 6 months from initiation. If they are not, any party may initiate dispute resolution in accordance with this agreement.

In the event that a contaminated structure is found to be the source of a release (or presents a substantial threat of a release) of hazardous substances, hazardous wastes, or hazardous constituents to the environment,

the investigation and remediation of such a release (to include remediation of structures, as necessary), where subject to CERCLA or RCRA, shall be subject to this Agreement. Specific requirements shall be incorporated into the Action Plan as appropriate. Releases which have already been identified have been included in the Action Plan as waste management units and assigned to operable units (see Appendix C).

As part of any action being taken under either RCRA or CERCLA for a contaminated structure, EPA and Ecology shall consider available information related to D&D decommissioning activities, including environmental impact statements. All hazardous wastes generated by the D&D decommissioning activities or stored at these storage areas shall be managed in accordance with applicable Federal and State hazardous waste regulations.

3.2 TREATMENT, STORAGE, AND DISPOSAL UNITS

Treatment, storage, and disposal units are those units which will be permitted (for operation and/or postclosure care) and/or closed, to include interim status postclosure care, under the Washington State Dangerous Waste Regulations (173-303 WAC) and the applicable provisions of HSWA. Appendix B provides a current listing of these units, or group of units (with individual units defined); identifies whether the TSD group/unit will be permitted for operation or closed; and identifies the assigned operable unit, if applicable. A TSD group represents a combination of units that are combined for purposes of preparing a permit application or closure plan. The schedule of permitting activities or closures will be established by Ecology in cooperation with the EPA and DOE. Some TSD groups/units, primarily land disposal units, are included within operable units (see 3.3 below) and will be addressed concurrently with past-practice activities as defined in Section 5.5. A further discussion of TSD groups/units is provided in Section 6.0.

3.3 PAST-PRACTICE UNITS

A past-practice unit is a waste management unit where wastes or substances (intentionally or unintentionally) have been disposed and that is not subject to regulation as a TSD unit as specified in Section 3.2.

Due to the relatively large number of past-practice units at the Hanford Site, a process has been established for organizing these units into groups called operable units. The concept of operable units is to group the numerous units (primarily by geographic area) into manageable components for investigation and remedial response action and to prioritize the cleanup work to be done at the Site.

The Waste Information Data System (WIDS) (see Section 3.5) contains information on waste management units that was used to support the development of operable units. This information, combined with operable unit identification and prioritization criteria described in this section, resulted in the initial designation of approximately 75 operable units across the Hanford Site. The Hanford Operable Units Report (currently titled "Preliminary Operable Units Designation Project") documents the assignment of units to operable units and prioritizes the operable units. The Hanford Operable Units Report is discussed further in Section 7.0. Each of the operable units will be subject to an investigation in the form of either a CERCLA or a RCRA past-practice process as described in Sections 7.3 and 7.4,

respectively. Appendix C includes a current list of all the past-practice units on the Hanford Site by operable unit.

Some TSD units, primarily land disposal units, will be investigated and managed in conjunction with past-practice units and have been assigned to appropriate operable units (see Appendix B for current assignment of TSD groups/units to operable units). The information resulting from the investigation will be used to supplement the preparation of the Part B applications and/or closure plans for such TSD groups/units necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents. These documents will include a coordinated past practice site investigation/RCRA closure/RCRA corrective action approach in order to efficiently implement applicable regulations. Those TSD units not assigned to an operable unit are typically treatment or storage units that are likely to be "clean closed" as described in Section 6.3.1.

Individual past-practice units (and selected TSD units) have been assigned to a specific operable unit based on the following criteria:

- General patterns of waste disposal from specific process sources
- Spatial relationship to other waste units
- Contribution to the same groundwater contaminant plume
- Physical characteristics of area (e.g., geologic/hydrogeologic)
- Access considerations (e.g., buildings, buried pipes)
- Anticipation of similar remedial action strategy (economy of scale)
- Reasonable number of total units to effectively manage.

In addition to the operable units discussed above, groundwater operable units can be established where multiple sources from different operable units have contributed to the same plume. Operable units that are associated with a groundwater operable unit are referred to as source operable units. The schedule for investigation of each groundwater operable unit will coincide with the schedule for investigation of the source operable unit that is the major contributor to the plume. Other associated source operable units that are lower priority will be investigated at a later time, in accordance with the established criteria for prioritization of operable units.

3.4 PRIORITIZATION

This section describes the bases for prioritizing operable units and those TSD groups/units that are not included within operable units.

3.4.1 Prioritization of Operable Units

Operable units are prioritized based on an initial assessment of risk potential to ensure that action is focused on the greater hazard. Criteria for evaluating and remediating potential hazards include the following information:

- Volume of wastes or hazardous substances
- Hazardous substances identification and concentration
- Toxicity or health effects of the hazardous substances
- Potential for migration to receptors via all environmental pathways.

In addition, the following factors are used to determine priority:

- Available technology to investigate or remediate the operable unit
- Operation consideration (e.g., timing of decommissioning activities)
- Consideration to those operable units that include TSD units.

Appendix C lists the current priority of operable units for investigation. This is based on currently available information and data. As new information and data become available, these priority assignments may be modified. The Hanford Operable Units Report provides the rationale and justification for the prioritization of the operable units. This priority is the basis for the work schedule (Appendix D). Procedures for modification of Appendix C are described in Section 12.0.

The highest priority operable units have been individually ranked and scheduled for investigation, whereas the remaining operable units have been prioritized into groups (see Appendix C). The single-shell tank operable units are unique and will be addressed separately as part of a supporting work plan.

3.4.2 Prioritization of Treatment, Storage, and Disposal Units

All TSD groups/units are subject to a permitting and/or closure process described in Section 6.0. Those TSD groups/units assigned to an operable unit will be prioritized in conjunction with past-practice priorities for purposes of investigation. The order in which permit applications or closure plans will be developed for the remaining TSD groups/units is based on consideration of the following criteria.

- Environmental Risk. The risk to public health and environment is the most important consideration. Any action that will significantly reduce the risk to public health and/or the environment will be considered the highest priority.
- Waste Minimization. Waste minimization is central to the goal of reducing environmental risks and bringing about environmental compliance for continuing operations and for new units at the Hanford Site. Therefore, the parties agree that Ecology's "Priority Waste Management Policy" (Ecology 86-07), established pursuant to CH. 70.105.150 RCW, shall be adhered to as guidance for purposes of establishing permitting priorities, in addition to evaluating proposed changes in operational procedures, and for the development and implementation of new waste management strategies. This policy defines the following prioritized actions: (1) waste reduction,

(2) recycling, (3) treatment, (4) stabilization, and (5) land disposal.

- Permit Application Dates Required by Law. The Hazardous and Solid Waste Amendments of 1984 (HSWA) mandated dates for submittal of Part B permit applications. The dates for submitting dangerous waste (excluding mixed waste units) Part B permit applications were as follows:

- Land disposal units: November 8, 1985
(all required Part B applications were submitted prior to this date)
- Incineration units: November 8, 1986
(not applicable for the Hanford Site)
- Treatment and storage units: November 8, 1988.

Part A permit applications for all mixed waste units that will be operating under interim status were due by May 23, 1988 (this date was met for all such known units). Part B permit applications for the disposal of mixed waste to land disposal units were due by November 23, 1988 (this date was met for all such known units), including the certification statement required by Section 3005(e)(2) of RCRA, that the unit is in compliance with the interim status groundwater monitoring requirements. There are no statutory Part B permit application dates for mixed waste treatment and storage units.

- Operational Requirements. Some operational considerations are important for maintaining or achieving environmental compliance, continuation of Hanford Site operations, or achieving cleanup in a cost-effective manner. Examples of such operational considerations include permitting a treatment unit for operation or accelerating closure actions to complement decontamination and decommissioning of related structures.

3.5 WASTE INFORMATION DATA SYSTEM AND HANFORD - SITE WASTE MANAGEMENT UNITS REPORT

The Waste Information Data System (WIDS) is maintained by the DOE and identifies all waste management units on the Hanford Site. This data base will describe the current status of each unit (e.g., active/inactive, TSD, CERCLA past-practice or RCRA past-practice), and will include other descriptive information (e.g., location, waste types). A hard copy and/or an electronic data transfer (or equivalent) of the WIDS data base will be provided to the EPA and Ecology. Upon written request, the DOE will provide data from the WIDS data base within 14 days from receipt of request. If additional time is required, the DOE will notify the requestor within three days of receipt of the request. A change control system is provided as part of the WIDS data base to document and trace all changes dealing with current status on a unit.

The WIDS data base provides the basis for the Hanford Site Waste Management Units Report (HSWMUR). The HSWMUR was initially submitted to the

EPA on May 15, 1987, in response to RCRA Section 3004(u) of the HSWA. This document lists all known waste management units (including unplanned release units) at the Hanford Site and summarizes the wastes handled, dates of use, and other information about each unit. In January of each year the DOE will reissue the HSWMUR, if determined necessary by the project managers, incorporating all changes since the last report. A copy will be provided to each public information repository.

5.0 INTERFACE OF REGULATORY AUTHORITIES

5.1 REGULATORY PROGRAMS

The RCRA, CERCLA, and State Dangerous Waste Program overlap in many areas. In general, CERCLA was created by Congress to respond to the release of hazardous substances and to investigate and respond to releases and potential releases from past-practice activities. The RCRA and State Dangerous Waste Program were created to prevent releases at active facilities that generate, store, treat, transport, or dispose of hazardous wastes or hazardous constituents. The RCRA, as amended by HSWA, also provides for corrective action for releases at RCRA facilities regardless of time of release. This section is intended to clarify how these various programs will interface to achieve an efficient regulatory program.

Regulatory decision making responsibility and associated signature authority shall remain with the regulatory agency having legal authority for those decisions, regardless of whether that agency is the lead regulatory agency for the work (see Section 5.6 for lead regulatory agency concept). For example, regulatory decisions with respect to regulated TSD units shall be made by Ecology (or EPA, for those HSWA provisions for which Ecology has not yet been authorized). Any regulatory decisions with respect to ~~remedial response~~ action at past practice units shall be made by EPA for any units classified as a CERCLA past practice unit. For any unit classified as a RCRA past practice unit, EPA shall be the regulatory decision-maker for corrective action at that unit prior to HSWA corrective action authorization for the State, and Ecology shall be the regulatory decision-maker after such authorization.

5.2 CATEGORIES OF WASTE UNITS

There are three categories of units and related statutory or regulatory authorities that will be addressed under this action plan. These categories are TSD unit, RCRA past-practice (RPP) unit, and CERCLA past-practice (CPP) unit. The following definitions will be used consistently throughout the remainder of this document.

5.2.1 Treatment, Storage, and Disposal Unit

This is a unit that has received or is currently receiving RCRA hazardous waste and hazardous constituents after November 19, 1980, or State-only hazardous waste, as defined in 173-303 WAC, after March 12, 1982. It also includes units at which such wastes will be stored, treated, or disposed in the future, except as provided by 173-303-200 WAC (waste accumulation times that do not require permitting). The TSD units are those that must receive a RCRA permit for operation or postclosure care and/or that must be closed to meet State standards. Section 6.0 describes the processes to be used to permit and/or close TSD units.

5.2.2 RCRA Past-Practice Unit

The purpose of this category is to address releases of RCRA hazardous wastes or constituents from sources other than TSD units at the Hanford Site regardless of the date of waste receipt at the unit. This includes single-incident releases at any location on the Site and corrective action beyond the

Site boundary. The HSWA corrective action authority is available for past-practice units, and consists of three separate components as follows:

- RCRA Section 3004(u). Section 3004(u) of RCRA provides authority for corrective action at ~~solid~~ waste management units at a facility seeking a RCRA permit. This includes units that received any solid waste, as defined in 40 CFR Part 261.2, including RCRA hazardous wastes or hazardous constituents, at any time. Hazardous constituents are those that are listed in 40 CFR Part 261 Appendix VIII. Those waste management units that will be addressed as RPP units under Section 3004(u) are so designated in Appendix C.
- RCRA Section 3004(v). RCRA Section 3004(v) specifies that corrective action to address releases from a RCRA facility will extend beyond the physical boundaries of the Site, to the extent necessary to protect human health and the environment. The EPA may implement RCRA Section 3004(v) in any situation where hazardous wastes or constituents are migrating off the Hanford Site. Section 3004(v) does not apply to releases within the boundary of the Hanford Site.
- RCRA Section 3008(h). RCRA Section 3008(h) is a broad corrective action authority that is applicable to the Hanford Site as long as RCRA interim status is maintained. It is more expansive than RCRA Section 3004(u), in that it can be used to address corrective action for any release of RCRA hazardous waste or constituents, including single-spill incidents, and can be used to address releases that migrate offsite.

5.2.3 CERCLA Past-Practice Unit

The CPP units include units that have received hazardous substances, as defined by CERCLA, irrespective of the date such hazardous substances were placed at the unit. Those waste management units that will be addressed as CPP units are so designated in Appendix C.

For the purposes of this action plan, it is necessary to distinguish between a CPP unit, a RPP unit, and a TSD unit. Any TSD unit, as defined in Section 5.2.1, will be classified as a TSD unit, rather than a CERCLA unit, even if it is investigated in conjunction with CPP units. The CPP and RPP units will be distinguished in accordance with Section 5.4.

5.3 MANAGEMENT OF TREATMENT, STORAGE, AND DISPOSAL UNITS

As previously stated, TSD units are identified in Appendix B. Any additional TSD units that are subsequently identified shall be added to Appendix B in accordance with the process described in Section 12.2.

Unless closed in accordance with Sections 6.3.1 or 6.3.3, TSD units shall be permitted for either operation or postclosure care pursuant to the authorized State Dangerous Waste Program (173-303 WAC) and HSWA. Prior to permitting or closure of TSD units, DOE shall achieve (in accordance with the work schedule contained in Appendix D) and maintain compliance with applicable

interim status requirements. All TSD units that undergo closure, irrespective of permit status, shall be closed pursuant to the authorized State Dangerous Waste Program in accordance with 173-303-610 WAC.

5.4 MANAGEMENT OF PAST-PRACTICE UNITS

This section describes the rationale for placing units in either a RCRA or a CERCLA past-practice category for corrective action as defined below. In many cases, either authority could be used with comparable results. The categories are as follows:

- The CPP units, (see Section 7.3)
- The RPP units, under authority of RCRA Sections 3004(u), 3004(v), and 3008(h) (see Section 7.4).

Since the Hanford Site was proposed for inclusion on the National Priorities List (NPL) (Federal Register, June 24, 1988), and was placed on the NPL on November 3, 1989 (Federal Register, October 4, 1989), the parties agree that any units managed as RPP units shall address all CERCLA hazardous substances for the purposes of corrective action. The parties agree that all of the wastes regulated under the State Dangerous Waste Program (173-303 WAC) shall be addressed as part of any CERCLA ~~remedial response~~ action or RCRA corrective action.

Section 121 of CERCLA, with provision for waivers in a limited number of circumstances, requires that remedial actions attain a degree of cleanup that meets "applicable or relevant and appropriate Federal and State environmental requirements" (ARAR). Accordingly, (1) all State-only hazardous wastes will be addressed under CERCLA, and (2) RCRA standards for cleanup or TSD requirements (as well as other applicable or relevant and appropriate Federal and State regulations) will be met under a CERCLA action (See Section 7.5 for further discussion of cleanup requirements). This eliminates many discrepancies between the two programs and lessens the significance of whether an operable unit is placed in one program or the other.

All past-practice units within an operable unit will be designated as either RPP units or CPP units. This designation will ensure that only one past-practice program will be applied at each operable unit. The corrective action process selected for each operable unit shall be sufficiently comprehensive to satisfy the technical requirements of both statutory authorities and the respective regulations.

If an operable unit consists primarily of past-practice units (i.e., no TSD units or relatively insignificant TSD units), CERCLA authority will generally be used for those past-practice units. The CERCLA authority will also be used for past-practice units in which remediation of CERCLA-only materials comprises the majority of work to be done in that operable unit.

The RPP authority will generally be used for operable units that contain significant TSD units and/or lower priority past-practice units.

Currently assigned RPP and CPP designations are shown in Appendix C. Further assignments will be made in accordance with Section 12.2 prior to initiation of any actions for those operable units.

The EPA and Ecology shall jointly determine whether an operable unit will be managed under the authority of RPP or CPP. Such designation may be changed due to the discovery of additional information concerning the operable unit. If a change in authority is proposed after the Remedial Investigation/Feasibility Study (RI/FS) or RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) work plan, as described in Section 7.0, has been submitted to the lead regulatory agency (see Section 5.6 on discussion of lead regulatory agency), the change requires the agreement of all parties.

5.5 TREATMENT, STORAGE, AND DISPOSAL UNITS AND PAST-PRACTICE UNITS INTERFACE

In some cases, TSD units are closely associated with past-practice units at the Hanford Site, either geographically or through similar processes and waste streams. Although disposition of such units must be managed in accordance with Section 6.0, a procedure to coordinate the TSD unit closure or permitting activity with the past-practice investigation and remediation activity is necessary to prevent overlap and duplication of work, thereby economically and efficiently addressing the contamination. In Appendix B, selected TSD groups/units, primarily land disposal units, have been initially assigned to operable units based on the criteria defined in Section 3.3. The information necessary for performing RCRA closure/postclosure within an operable unit will be provided in various RFI/CMS documents. The initial work plan will contain a Sampling and Analysis Plan (SAP) for the associated RCRA units and it will outline the manner in which RCRA closure/postclosure plan requirements will be met in the work plan and subsequent documents. The selected closure/postclosure method and associated design details will (unless otherwise agreed to by the parties) be submitted as part of the CMS report at a later date, as specified in the work plan. The proposed closure/postclosure activities contained in the CMS report will: (1) meet RCRA closure standards and requirements, (2) be consistent with closure requirements specified in the Hanford Site-Wide (RCRA) permit, and (3) be coordinated with the recommended remedial action(s) for the associated operable unit. Additionally, the closure/postclosure implementation schedule will reflect an overall prioritization between closure/postclosure and other remedial activities within the subject operable unit, considering environmental protection, health and safety, availability of technology, etc. Each RFI/CMS closure document will be structured such that RCRA closure requirements can be readily identified for a separate review/approval process and RCRA closure/postclosure requirements can be incorporated in the RCRA Permit. If at a later date TSD groups/units need to be deleted from or added to an operable unit, the procedures defined in Section 12.2 will be used.

Ecology, the EPA, and DOE agree that past-practice authority may provide the most efficient means for addressing mixed-waste groundwater contamination plumes originating from a combination of TSD and past-practice units. However, in order to ensure that TSD units within the operable units are brought into compliance with RCRA and State hazardous waste regulations, Ecology intends, subject to part four of the Agreement, that all remedial response or corrective actions, excluding situations where there is an imminent threat to the public health or environment as described in Section 7.2.3, will be conducted in a manner which ensures compliance with the technical requirements of the HWMA (Chapter 70.105 RCW and its implementation regulations). In any case, the parties agree that CERCLA remedial actions and, as appropriate, HSWA corrective actions measures will comply with ARARs.

5.6 LEAD REGULATORY AGENCY CONCEPT

The EPA and Ecology have selected a lead regulatory agency approach to minimize duplication of effort and maximize productivity. Either the EPA or Ecology will be the lead regulatory agency for each operable unit. This concept combines TSD activity with past-practice unit activity in cases where TSD units are assigned to operable units.

The lead regulatory agency for a specific operable unit will be responsible for overseeing the activities covered by this action plan at that operable unit, ensuring that all applicable requirements are met. However, the EPA and Ecology retain their respective legal authorities and shall make the decisions on actions to be taken pursuant to those authorities. Regulatory oversight activity, including preparation of responses to documents submitted by the DOE, will be done by the lead regulatory agency for each operable unit. The regulatory agency that is not the lead regulatory agency will be designated as the supporting regulatory agency. The role of the supporting regulatory agency will be to assist the lead regulatory agency as needed, and to make decisions on those issues for which it has legal authority.

The assignment of the lead regulatory agency for an operable unit will be based on the following criteria.

- The EPA will generally be the lead regulatory agency in the following cases:
 - Operable units that contain no TSD units or that contain low-priority TSD units
 - Operable units that contain primarily CERCLA-only materials.
- Ecology will generally be the lead regulatory agency in the following cases:
 - Operable units that consist of major TSD units, with limited past-practice units
 - Operable units that contain higher priority TSD units and lower priority past-practice units.

In some cases, the above criteria may overlap, such that either the EPA or Ecology could be assigned as the lead regulatory agency. In this situation, other criteria would be used, such as available resources to undertake additional work in a timely manner, the designation and characteristics of an adjoining operable unit, or whether the characteristics of a given operable unit are similar to the characteristics of another operable unit that has already been managed by either agency.

Currently assigned lead regulatory agency designations are shown in Appendix C. Additional assignments will be made in accordance with Section 12.2 prior to any action on the operable unit. The lead regulatory agency for each operable unit shall maintain its role through completion of all remedial or corrective actions at the operable unit.

The decision as to which agency will assume the lead role at an operable unit will be a joint determination by the EPA and Ecology. Such determinations are subject to change based on additional information subsequently discovered concerning an operable unit, or for any other reason, as agreed upon by the EPA and Ecology. The parties intend that once the lead regulatory agency has been assigned to an operable unit and the RI/FS (or RFI/CMS) work plan, as described in Section 7.0, has been approved, the lead regulatory agency designation will not change except for an extreme circumstance.

5.7 INTEGRATION WITH THE NATIONAL ENVIRONMENTAL POLICY ACT

The purpose of the NEPA requirements is to ensure that potential environmental impacts of investigation and cleanup activity are assessed. These assessments, when determined to be required, will be made primarily as part of the CERCLA remedial response action and RCRA corrective actions processes. These processes will be supplemented, as necessary, to ensure compliance with NEPA requirements.

6.0 TREATMENT, STORAGE, AND DISPOSAL UNIT PROCESS

6.1 INTRODUCTION

This section discusses the requirements of RCRA and the State of Washington Hazardous Waste Management Act, Chapter 70.105 RCW, and pertains to all units that were used to store, treat, or dispose of RCRA hazardous waste and hazardous constituents after November 19, 1980; State-only hazardous waste after March 12, 1982; and units at which such wastes will be stored, treated, or disposed in the future, except as provided by 173-303-200 WAC.

A list of these units, or grouping of units, is provided in Appendix B. Section 3.0 identifies the criteria by which these units will be scheduled for permitting and closure actions.

Some of the TSD groups/units (primarily land disposal units) have been included in operable units, as discussed in Section 3.3, and will in most cases be investigated on a separate priority schedule, as discussed in Section 3.4. ~~When this situation exists, the Part B permit application and/or closure plan will be prepared concurrently with the operable unit investigation.~~ The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents. These documents will include a coordinated past practice site investigation/RCRA closure/RCRA corrective action approach in order to implement applicable regulations as discussed in Section 5.5.

~~Some of the TSD groups/units (primarily those located within large processing facilities) will be integrated with the disposition of the facility, and therefore closed in accordance with the process defined in Section 14.0. These units are those that have physical closure actions that need to be done in conjunction with the physical disposition actions in the facility (e. g. removal of structural components). Even though TSD units are closed in accordance with Section 14.0, applicable requirements defined in this section still apply (e.g. 6.5 Quality Assurance).~~

Currently identified actions necessary to bring TSD units into compliance with Federal and State laws are identified in the work schedule (see Appendix D) including necessary interim milestones. These interim milestones are consistent with the major milestones for achieving interim status compliance requirements specified in Section 2.4. A schedule for completing interim status compliance actions is provided as part of Appendix D.

The RCRA land disposal restrictions (LDR) require that established treatment requirements be met prior to land disposal of hazardous wastes. While treatment capacity generally exists for the nonradioactive hazardous wastes which are subject to LDR, treatment is currently not available for the mixed wastes subject to LDR which require storage at the Hanford Site.

In accordance with Milestone M-26-00, DOE will submit the "Hanford Land Disposal Restrictions Plan for Mixed Wastes," (LDR Plan) to EPA and Ecology. This plan will describe a process for managing mixed wastes subject to LDR at the Hanford Site and will identify actions which will be taken by DOE to achieve full compliance with LDR requirements.

These actions will be taken in accordance with approved schedules specified in the LDR Plan and in the Work Schedule (Appendix D). The DOE will submit annual reports which shall update the LDR Plan and the prior annual report, including plans and schedules. The annual report will also describe activities taken to achieve compliance and describe the activities to be taken in the next year toward achieving full compliance. The LDR Plan and annual reports are primary documents, subject to review and approval by EPA, in consultation with Ecology. EPA also has approval authority for schedules in the LDR Plan and annual reports. Changes to approved final schedules must be made in accordance with the Change Control System described in Section 12.0. When Ecology receives authorization from EPA to implement the LDR provisions of RCRA pursuant to Section 3006 of RCRA, Ecology will review and approve the annual reports, plans, and schedules in consultation with EPA, and will otherwise administer the LDR requirements.

6.2 TREATMENT, STORAGE, AND DISPOSAL PERMITTING PROCESS

The Hanford Site has been assigned a single identification number for use in State Dangerous Waste Program/RCRA permitting activity. Accordingly, the Hanford Site is considered to be a single RCRA facility, although there are numerous unrelated units spread over large geographic areas on the Site.

Since all of the TSD groups/units cannot be permitted simultaneously, Ecology and the EPA will issue the initial permit for less than the entire facility. This permit will eventually grow into a single permit for the entire Hanford Site. The Federal authority to issue a permit at a facility in this manner is found in 40 CFR 270.1(c)(4). Any units that are not included in the initial permit will normally be incorporated through a permit modification. At the discretion of Ecology and EPA, the permit revocation and reissuance process may be used.

The process of permit modification is specified in 173-303-830 WAC and 40 CFR 270.41. A permit modification does not affect the term of the permit (a permit is generally issued for a term of 10 years). Proposed modifications are subject to public comment, except for minor modifications as provided in 173-303-830(4) WAC and 40 CFR 270.42.

The process of revocation and reissuance is specified in 173-303-830 WAC and 40 CFR 270.41. Revocation and reissuance means that the existing permit is revoked and an entirely new permit is issued, to include all units permitted as of that date. In this case, all conditions of the permit to be reissued would be open to public comment and a new term (10 years in most cases) would be specified for the reissued permit.

Figure 6-1 depicts a flowchart for processing all operating permits for TSD groups/units and for processing postclosure permits for TSD groups/units that will close with hazardous wastes or constituents left in place. The permitting process applies to existing units, expansion of units under interim status, and new units (units that do not have interim status and must have a permit prior to construction).

Ecology shall normally be responsible for drafting permit conditions related to HSWA requirements. In addition, Ecology will work with EPA on HSWA issues and related policy development associated with implementation regarding mixed waste sites. Until the HSWA provisions have been delegated from EPA to

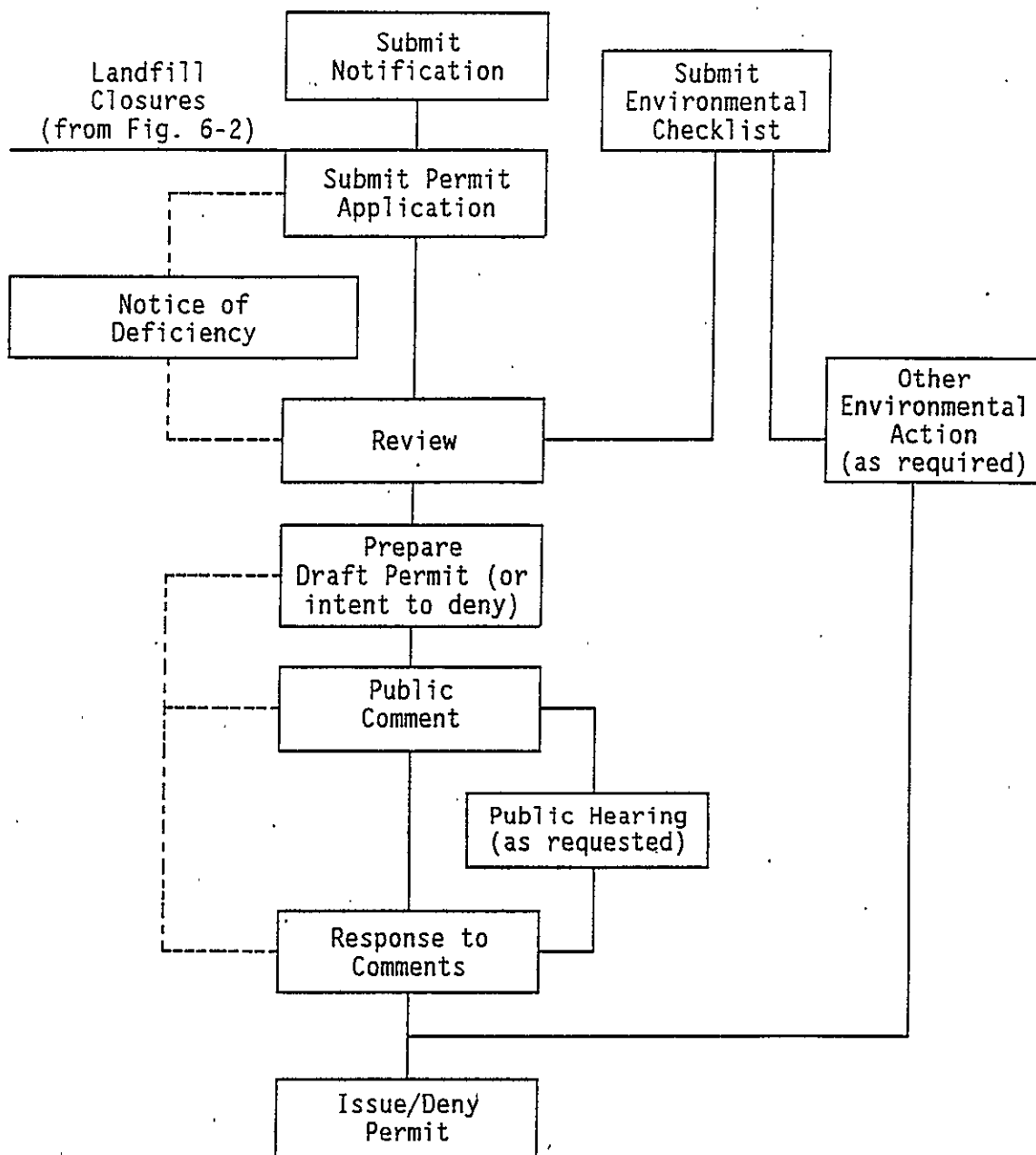


Figure 6-1. Permitting Process Flowchart.

Ecology through the authorization process, EPA will maintain final approval rights for those permit conditions pursuant to HSWA authority that have not been delegated. Therefore, certain conditions of the joint permit will be enforceable by Ecology, others will be enforceable by EPA, and some conditions will be enforceable by both agencies. The permit will identify which conditions are enforceable by each agency.

Disputes concerning RCRA requirements prior to partial or final delegation will be addressed in accordance with Article VIII of the Agreement for those relevant portions for which Ecology has authority, and in accordance with Article XVI of the Agreement for those portions for which EPA retains authority. Ecology will have the responsibility for drafting the permit or permit modifications for all TSD groups/units that are not assigned to operable units. When TSD groups/units are assigned to operable units, the lead regulatory agency, as described in Section 5.6, will be responsible for ensuring that the Part B permit application is complete, preparing the Notices of Deficiency (NOD) to the DOE, as necessary, and drafting the permit. The supporting regulatory agency will lend support to the process as needed.

The Part B permit application is a primary document, as defined in Section 9.1. The review procedures, as specified in Section 9.2.2, will be followed. In the event that issues cannot be resolved through the NOD process, the appropriate dispute resolution process can be invoked.

Section 3004(u) of RCRA requires that all solid waste management units be investigated as part of the permit process. The statute provides that the timing for investigation of such units may be in accordance with a schedule of compliance specified in the permit. The parties have addressed the statutory requirement through the preliminary identification and assignment of all known past-practice units to specific operable units (see Section 3.0). These operable units have been prioritized and scheduled for investigation in accordance with the work schedule (Appendix D). It is the intent of all parties that this requirement be met through incorporation of applicable portions of this action plan into the RCRA permit. This will include reference to specific schedules for completion of investigations and corrective actions.

Ecology, the EPA, and DOE will follow all current versions of applicable Federal and State statutes, regulations, guidance documents, and written policy determinations that pertain to the permitting process, including postclosure permits, for TSD groups/units. Public participation requirements for permitting TSD groups/units will be met and are addressed in Section 10.0.

6.3 TREATMENT, STORAGE, AND DISPOSAL CLOSURE PROCESS

The DOE will follow applicable Federal and State statutes, regulations and guidance documents, and written policy determinations that pertain to the closure process for TSD groups/units.

The TSD units containing mixed waste will normally be closed with consideration of all hazardous substances, which includes radioactive constituents. Hazardous substances not addressed as part of the TSD closure may be addressed under CERCLA past-practice (CPP) authority in accordance with the process defined in Section 7.0.

The following are examples of when a unit may be closed without addressing all hazardous substances (e.g., radioactive waste).

- For treatment or storage units within a radioactive structure [e.g., the Plutonium/Uranium Extraction (PUREX) Plant] it may be possible to remove all hazardous wastes and "clean close" (see Section 6.3.1). The radioactive constituent would then remain for a future decontamination and decommissioning effort of the entire structure.
- For a land disposal unit being closed in conjunction with an operable unit, initial investigation may show that the unit no longer contains hazardous waste or constituents. Therefore, the unit may be "clean closed" with no physical closure action. Any remaining CERCLA-only materials would be addressed as part of the past-practice process as designated for that operable unit.

Figure 6-2 depicts a flowchart of the closure process for TSD units. Two types of closures are shown.

6.3.1 Clean Closure

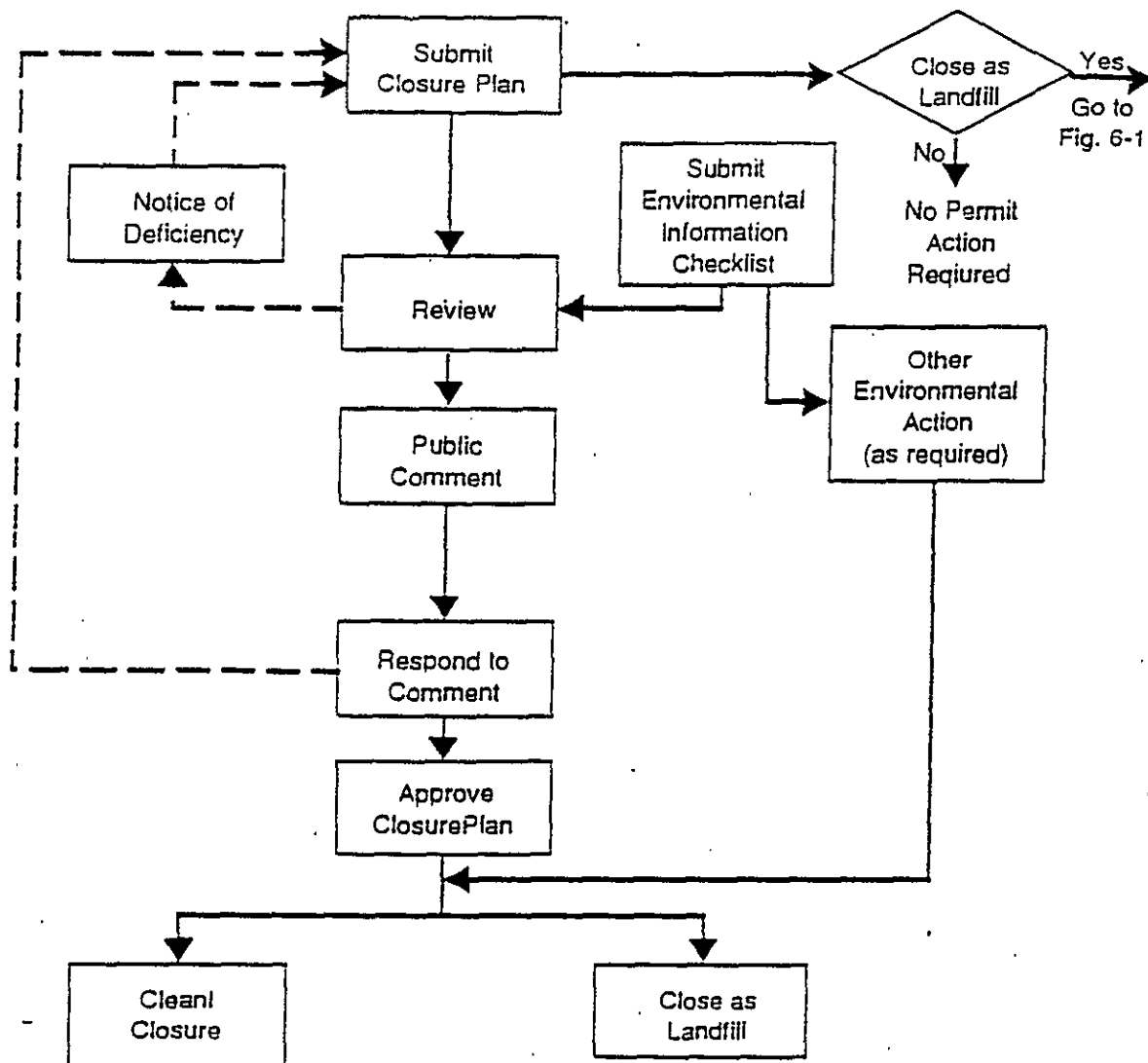
In some cases, it may be possible to remove all hazardous wastes and constituents associated with a TSD unit and thereby achieve "clean closure." The process to complete clean closure of any unit will be carried out in accordance with all applicable requirements described in 173-303 WAC and 40 CFR 270.1. Any demonstration for clean closure of a disposal unit, or selected treatment or storage units as determined by the lead regulatory agency, must include documentation that groundwater and soils have not been adversely impacted by that TSD group/unit, as described in 173-303-645 WAC.

After completion of clean closure activities, a closed storage unit may be reused for generator accumulation (less than 90 day storage).

6.3.2 Closure as a Land Disposal Unit

If clean closure, as described above, cannot be achieved, the TSD unit will be closed as a land disposal unit. The process to close any unit as a land disposal unit will be carried out in accordance with all applicable requirements described at 173-303 WAC. In order to avoid duplication under CERCLA for mixed waste, the radionuclide component of the waste will be addressed as part of the closure action.

In the case of closure as a land disposal unit, a postclosure permit will be required. The postclosure permit will cover maintenance and inspection activities, groundwater monitoring requirements, and corrective actions, if necessary, that will occur during the postclosure period. The postclosure period will be specified as 30 years from the date of closure certification of each unit, but can be shortened or lengthened by Ecology at any time in accordance with 173-303-610 WAC. The closure plan will be submitted in conjunction with the Part B postclosure permit application, unless the parties agree otherwise. If a unit is to be closed as a land disposal unit prior to issuance of a permit for postclosure, an interim status postclosure plan will accompany the closure plan.



S8902098.1

Figure 6-2. Closure Process Flowchart.

6.3.3 Procedural Closure

This is used for those units which were classified as being TSD units, but were never actually used to treat, store, or dispose of hazardous waste, including mixed waste, except as provided by 173-303-200 WAC or 173-303-802 WAC. This action requires that Ecology be notified in writing that the unit never handled hazardous wastes. Such information must include a signed certification from the DOE, using wording specified in 173-303-810(13) WAC. Ecology will review the information as appropriate (usually to include an inspection of the unit) and send a written concurrence or denial to the DOE. If denied, permitting and/or closure action would then proceed, or the dispute resolution process would be invoked.

6.4 RESPONSE TO IMMINENT AND SUBSTANTIAL ENDANGERMENT CASES

The State of Washington Dangerous Waste Regulations, 173-303-960 WAC, addresses actions to abate an imminent and substantial endangerment to the health or the environment from the releases of dangerous or solid wastes. Ecology will require DOE to either take specific action to abate the danger or threat, or will require a specific submittal date for DOE to propose an abatement method. If the EPA (as lead regulatory agency) determines that such a situation exists at a TSD unit, a recommendation will be made to Ecology for appropriate action.

See Section 7.2.3 for information concerning responses to imminent and substantial endangerment cases at past-practice sites.

6.5 QUALITY ASSURANCE

The level of quality assurance and quality control (QA/QC) for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Agreement shall be dependent upon the data quality objectives for the sample. Such data quality objectives shall be specified in RCRA closure plans, the RCRA permit, and any other relevant plans that may be used to describe sampling and analyses at RCRA TSD units.

The QA/QC requirements shall range from those necessary for non-laboratory field screening activities to those necessary to support a comprehensive laboratory analysis that will be used in final decision-making. This range of QA/QC options is included in the "Data Quality Strategy for Hanford Site Characterization" (as listed in Appendix F). This document is subject to approval by EPA and Ecology.

Based upon the data quality objectives, the DOE shall comply with EPA guidance documents for QA/QC and sampling and analysis activities which are taken to implement the Agreement. Such guidance includes:

- "Guidelines and Specifications for Preparing Quality Assurance Program Plans" (QAMS-004/80);
- "Interim Guidance and Specifications for Preparing Quality Assurance Project Plans" (QAMS-005/80);
- "Data Quality Objectives for Remedial Response Activities" (EPA/540/G-87/003 and 004); and

- "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA/SW-846)..

In some instances, RCRA TSD units are included in operable units and are scheduled for investigation and closure as part of the operable unit remedial action. DOE shall follow the provisions of Section 7.8 for QA/QC for sampling and analysis activities at these land disposal units.

In regard to QA requirements for construction of RCRA land disposal facilities, DOE shall comply with "Technical Guidance Document: Construction Quality Assurance for Land Disposal Facilities" (EPA/530-SW-86-031).

For analytical chemistry and radiological laboratories, the QA/QC plans must include the elements listed in "Guidance on Preparation of Laboratory Quality Assurance Plans" (as listed in Appendix F). DOE shall submit laboratory QA/QC plans to EPA and Ecology for review as secondary documents prior to use of that laboratory. In the event that DOE fails to demonstrate to the lead regulatory agency that data generated pursuant to this Agreement was obtained in accordance with the QA/QC requirements of this section, including laboratory QA/QC plans, DOE shall repeat sampling or analysis as required by the lead regulatory agency. Such action by the lead regulatory agency shall not preclude any other action which may be taken pursuant to this Agreement. For other data, Ecology or EPA may request DOE to provide QA/QC documentation. Any such data that does not meet the QA/QC standard required by this section shall be clearly flagged and noted to indicate this fact.

7.0 PAST PRACTICES PROCESSES

7.1 INTRODUCTION

This section has the following five purposes.

- Describe the processes that are common to both CPP units and RPP units (Section 7.2).
- Describe the steps to be followed if the past-practice units at a given operable unit are to be managed through the CERCLA process (Section 7.3).
- Describe the steps to be followed if the past-practice units at a given operable unit are to be managed through the RPP unit process (Section 7.4).
- Describe the process for setting cleanup standards for any CPP or RPP remedial action (Section 7.5).
- Describe the role of other Federal agencies in the investigation and remedial action processes (Sections 7.6 and 7.7).

Approximately 1,400 waste management units have been identified within the boundaries of the 560-square mile Hanford Site. This includes approximately 1,000 past-practice units. Most past-practice units are located in two general geographic areas as identified by the DOE (the 100 and 200 Areas). Other past-practice units are located in the 300, 1100 and other areas of the Hanford Site.

The 100, 200, 300, and 1100 Areas were identified as aggregate areas for inclusion of the Hanford Site on the CERCLA NPL. Figure 7-1 reflects these geographic areas at the Hanford Site. Each of these areas has a unique environmental setting and waste disposal history. The four aggregate areas were proposed for inclusion on the NPL on June 24, 1988, and were placed on the NPL on November 3, 1989 (Federal Register, October 4, 1989). The remaining past-practice units from other areas have been assigned to operable units within one of the four aggregate areas for the purpose of investigation and subsequent action. Any future units that may be identified will also be assigned to operable units within an aggregate area.

Cleanup of past-practice units will be conducted pursuant to either the CERCLA process (Section 7.3) or RCRA process (Section 7.4). Figure 7-2 highlights the major steps involved in both the CPP and RPP programs and indicates how each of these steps is related to a comparable step in the other program. It shows that the steps of CERCLA are functionally equivalent to steps in the RPP program. Accordingly, the investigative process at any operable unit can proceed under either the CPP or the RPP program.

In accordance with paragraph 3.1, and discussed under paragraph 14.3, the parties may elect to include the disposition of facilities under the past practices processes. Such actions can proceed under either the CPP or the RPP Program.

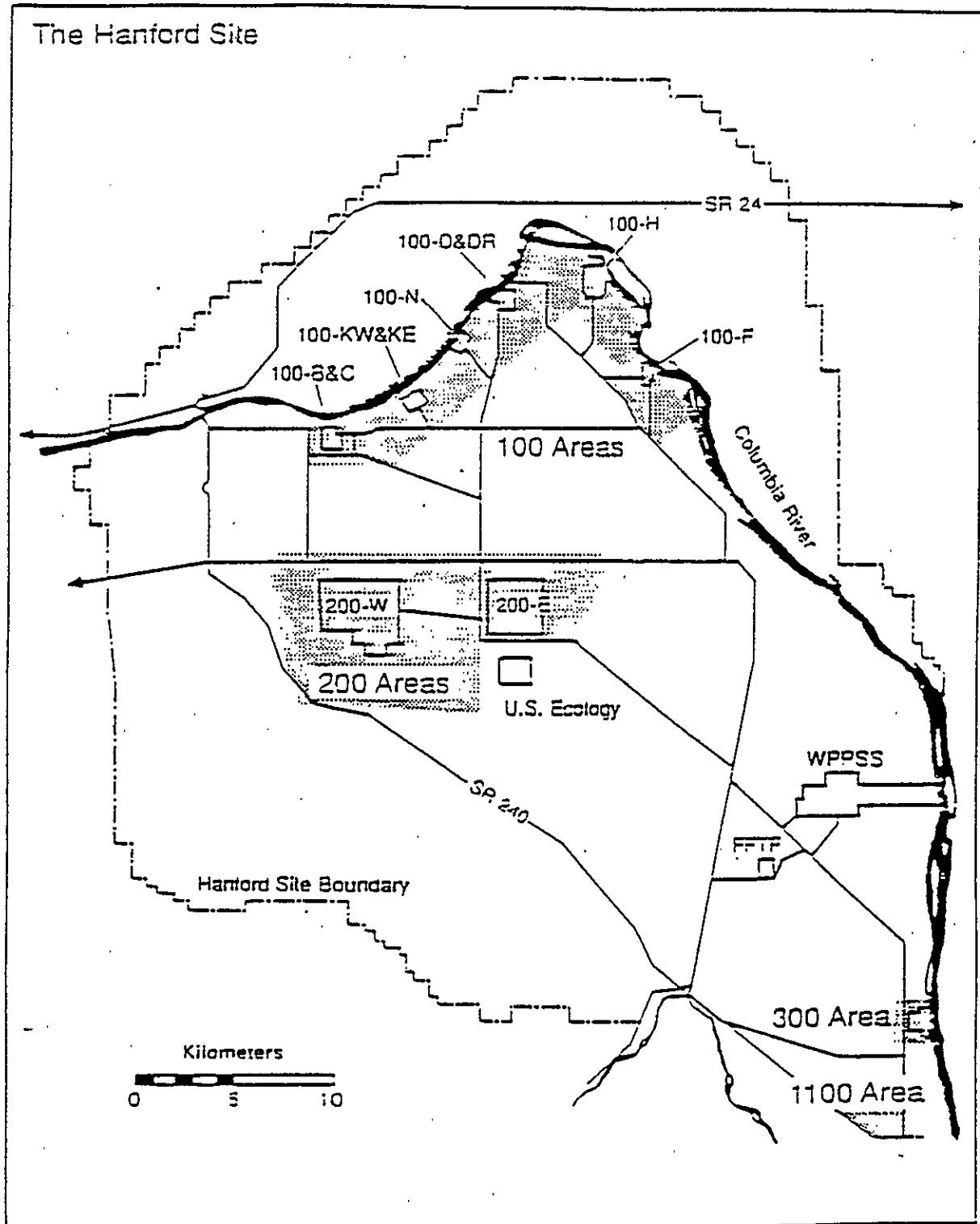
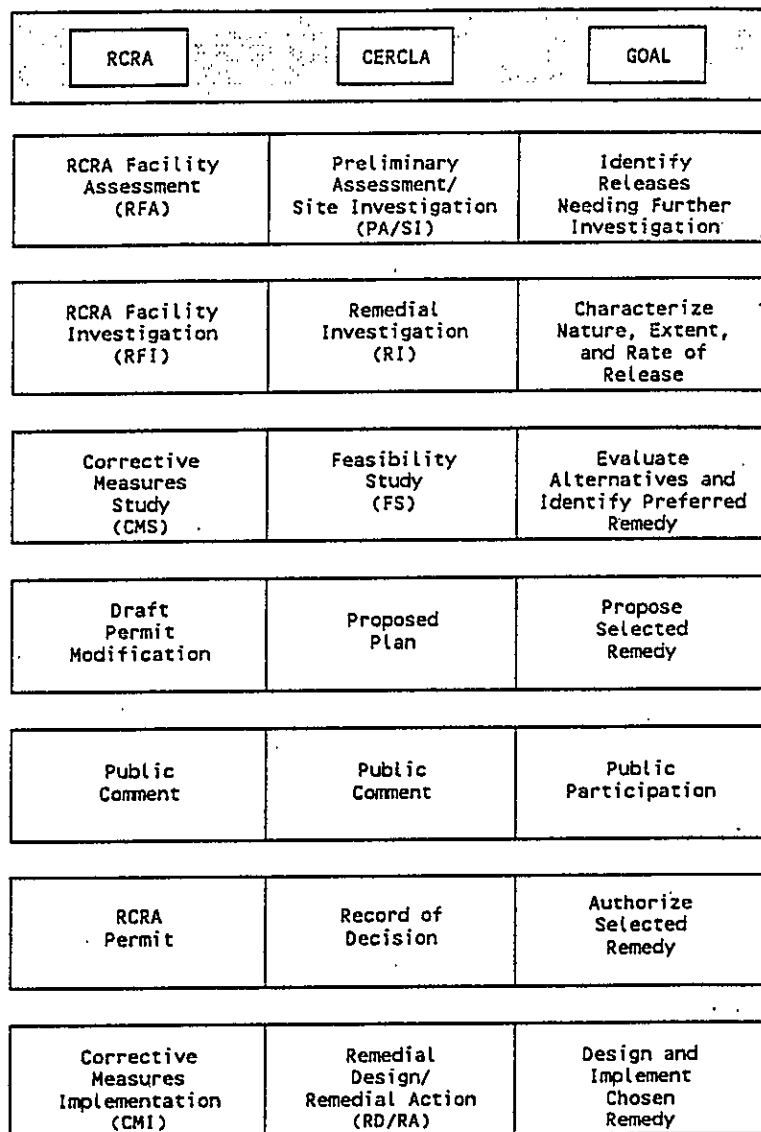


Figure 7-1. Aggregate Areas.



CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act

RCRA = Resource Conservation and Recovery Act

Note: Interim remedial-response actions or interim measures can be performed at any point in the remedial action/corrective action process.

Figure 7-2. Comparison of Resource Conservation and Recovery Act Corrective Action Measure and Comprehensive Environmental Response, Compensation, and Liability Act Remedial Action Processes.

7.2 PRELIMINARY PROCESSES

Section 5.4 describes the rationale for managing operable units under either the CPP or the RPP category. The following processes apply to all past-practice units, regardless of whether they are classified as RPP or CPP units.

7.2.1 Site-wide Scoping Activity

An ongoing scoping activity will be conducted on a site-wide basis to maintain a current listing of operable unit boundaries and priorities. The primary vehicle for documentation of this activity will be the Hanford Operable Units Report/Waste Information Data System (WIDS). The Hanford Operable Units Report/WIDS, as described in Section 3.3, the Hanford Site Waste Management Units Report, and Appendix C of this action plan will be updated as additional information becomes available.

Although initial operable unit boundaries have been identified (Appendix C), the site-wide scoping activity may reveal additional or new information that could impact either the designation of individual units within operable units or the priority in which operable units will be managed. Any such changes will require the written concurrence of the project managers for the EPA, Ecology, and the DOE, in accordance with the modification procedures described in Section 12.2.

The site-wide scoping activities will not impact the schedule of any other activities that are shown on the work schedule (Appendix D).

7.2.2 Operable Unit Scoping Activity

The operable unit scoping activity will be used to support the initial planning phase for each RI/FS (or RFI/CMS). Such activity and planning will result in an overall management strategy for each operable unit. In some cases, the operable unit management strategy may include facility dispositioning activities which will be integrated with this process as discussed under paragraph 14.3, "Decommissioning Process Planning". The DOE shall assemble and evaluate existing data and information about the individual waste management units and release sites within each operable unit. The data and information obtained during each operable unit scoping activity will be used to support the logic for the RI/FS (or RFI/CMS) work plan and, therefore, will be submitted as part of each work plan.

This scoping activity is not intended to be a mechanism for generation of new information except for site survey and screening activities described in Section 7.3.2, but a thorough and complete evaluation of existing data. The schedule for submittal of the work plans, as specified in the work schedule (Appendix D), allows time for inclusion of the scoping activity.

The following is a list of specific scoping activities that will be addressed in each RI/FS (RFI/CMS) work plan:

- Assessment of whether interim response actions (IRA) or interim measures (IM) may be necessary. Such assessments will be documented as part of the work plan and may result in IRA or IM proposals

- Assessment of available data and identification of additional data needs
- Identification of potential ARARs (see Section 7.5)
- Identification of potential remedial responses.

7.2.3 Response to Imminent and Substantial Endangerment Cases

In the event that a situation is determined by the lead regulatory agency to represent an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance or hazardous waste or solid waste at an operable unit, the lead regulatory agency may require the DOE to immediately initiate activities to abate the danger or threat. Both CERCLA and RCRA include provisions to quickly respond to such situations. Section 106 of CERCLA addresses imminent and substantial endangerments from releases of hazardous substances and Section 7003 of RCRA addresses imminent hazards from releases of solid or hazardous wastes. If the operable unit is being managed under the CPP procedures, abatement in accordance with Section 106 of CERCLA and the applicable sections of the National Contingency Plan (NCP) (40 CFR Part 300) is preferred. If the operable unit is being managed under the RPP procedures, abatement under the provisions of Section 7003 of RCRA will be preferred. If the operable unit has not yet been assigned to either the CPP or RPP process, the EPA and Ecology will jointly choose an authority to address the imminent and substantial endangerment.

The lead regulatory agency either shall specify the abatement method or shall specify a submittal date for DOE's proposed abatement method. In addition, the DOE may voluntarily submit a proposed method for abatement to the lead regulatory agency at any time. In cases involving a proposed method for abatement, the EPA must approve the DOE's proposal prior to initiation of field work. When Ecology is designated as the lead regulatory agency, Ecology shall recommend the selection of remedy to the EPA for approval. The final selection of remedy for an abatement action shall be consistent, to the extent practicable, with the final selection of remedial action (for CPP units) or corrective measures (for RPP units) anticipated for the unit(s).

To expedite the cleanup process, neither the specified abatement method nor the proposal for abatement will be subject to the public comment process, except as provided by Section 7003 of RCRA. However, the public will be kept informed of the status of the abatement process through other means as described in Section 10.0. After completion of all required abatement activity, the routine RI/FS or RFI/CMS process will be implemented, or continued, in accordance with the work schedule (Appendix D). The procedures specified in Section 7.3 or 7.4, respectively, will be followed.

7.2.4 Interim Response Action and Interim Measure Processes

If data or information acquired at any time indicate that an expedited response, is needed or appropriate because of an actual or threatened release from a past-practice unit, the lead regulatory agency may require the DOE to submit a proposal for an expedited response at that unit. In addition, the

DOE may submit such a proposal at any time, without request from the lead regulatory agency.

Both CERCLA and RCRA include provisions for expedited responses. These expedited responses will be reserved for situations in which an expedited response is determined to be warranted by the lead regulatory agency, which for purposes of this section includes both interim response action and interim measures. An IRA refers to the CERCLA process and an IM refers to the RCRA process. The IRA or IM process will be used in cases where early remediation will prevent the potential for an imminent and substantial endangerment or an imminent hazard to develop. It may also be used in cases where a single unit within an operable unit is a high priority for action, but the overall priority for the operable unit is low. In this way, a specific unit or release at an operable unit can be addressed on an expedited schedule, when warranted.

In addition to the CERCLA and RCRA authorities, Section 2 of Executive Order 12580, dated January 29, 1987, allows the DOE to implement removal actions in circumstances other than emergencies. To the extent that a removal action taken by the DOE under Executive Order 12580 could be inconsistent with the CERCLA or RCRA processes, or if such action could alter the schedules as set forth in Appendix D, the concurrence of all project managers shall be required prior to initiation of field work.

If the operable unit is being managed under the CPP procedures, an IRA proposal shall be submitted by the DOE to the lead regulatory agency, and the IRA shall be conducted in accordance with 40 CFR Part 300 Subpart E. If the operable unit is being managed under the RPP procedures, the IM proposal shall be submitted to the lead regulatory agency, and the IM shall be conducted in accordance with applicable regulations. If the operable unit has not yet been assigned to either the CPP or RPP process, the EPA and Ecology will jointly choose an authority to address the expedited response.

Any proposal for an IRA or an IM must be approved by the EPA prior to initiation of field work. When Ecology is designated as the lead regulatory agency, Ecology shall recommend the selection of remedy to the EPA for approval. The selection of remedy for an IRA or an IM shall be consistent, to the extent practicable, with anticipated alternatives for final selection of remedial action (for CPP units) or corrective measures (for RPP units).

Public comment on the IRA proposal, as well as other public participation opportunities, will be provided as described in Section 10.0.

7.3 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT PAST-PRACTICE UNIT PROCESS

The purpose of this subsection is to provide an overview of the CPP unit process to be used at the Hanford Site to initiate effective, timely, and environmentally sound cleanup of operable units handled under CERCLA. This includes a description of the RI/FS process, followed by a short discussion of the remedial design (RD), remedial action (RA), and operation and maintenance (O&M) phases.

7.3.1 Preliminary Assessment/Site Inspection

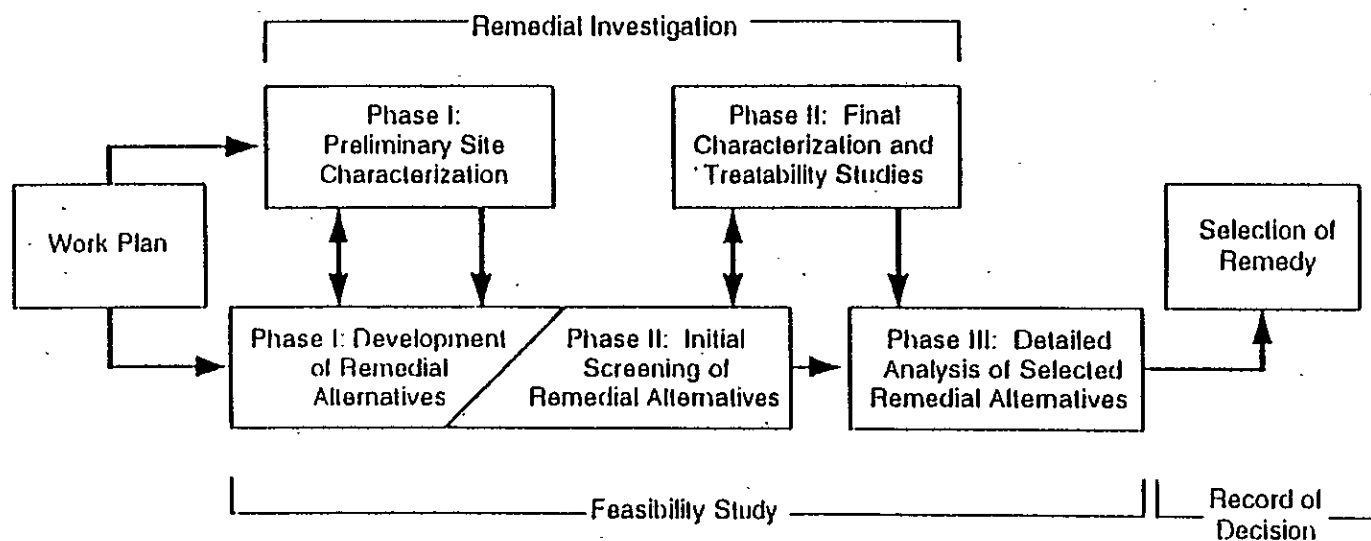
The Preliminary Assessment/Site Inspection (PA/SI) is used as an initial screening step to determine whether a site should be nominated for the CERCLA NPL. For the Hanford Site, the information necessary to make that determination was provided to the EPA in 1987 by the DOE. The EPA determined that this information was functionally equivalent to a PA/SI. Based on that information, the Hanford Site was ranked and then nominated for inclusion on NPL on June 24, 1988 (Federal Register Vol. 53, No. 122, p. 23988). The four aggregate areas of the Hanford Site were officially placed on the NPL effective November 3, 1989 (Federal Register Vol. 54, No. 191, p. 41015). Therefore, there is no need to continue a PA/SI activity for the Hanford Site. Efforts will proceed directly to the scoping activities previously discussed and the RI/FS process. Figure 7-3 shows the normal sequence of events that occur during the RI/FS process.

7.3.2 Remedial Investigation/Feasibility Study Work Plan for Each Operable Unit

The RI/FS work plan is a primary document, as described in Section 9.0. The lead regulatory agency will provide comments on each RI/FS work plan that is submitted by the DOE. The RI/FS work plan will be made available for public comment for a period of 30 days, in accordance with the procedures described in Section 10.0. On a case-by-case basis, the unit managers may agree to extend the comment period to 45 days. Following public comment, the lead regulatory agency will require the DOE to make appropriate changes to the RI/FS work plan, based on review of public comments received, and will approve the work plan. At that time, the work schedule (Appendix D) may need to be modified to accurately reflect the RI/FS work plan schedule. Such modification will be made by the project managers in accordance with the procedures described in Section 12.0. At that time, the EPA and Ecology will publish the RI/FS schedule, in accordance with CERCLA Section 120(e)(1) and as specified in Article XVII of the Agreement. As additional information becomes available during the RI/FS process, the RI/FS work plan may be revised.

The RI/FS work plan will include or reference seven interrelated components as they pertain specifically to RI/FS activities at any given operable unit. These components, prepared in accordance with current EPA guidance documents, include the following:

- Technology
- Quality assurance/quality control
- Project management
- Sampling and analysis
- Data management
- Health and safety
- Community relations.



S8812008.2

Figure 7-3. Overview of the Remedial Investigation/Feasibility Study Process.

Every effort will be made to standardize these across RI/FS work plans to minimize the time and resources required for preparation and review. The community relations component will be prepared and issued as a separate formal plan as described in Section 10.0 and will then be referenced in each RI/FS work plan.

The following site survey and screening activities may precede submittal of the RI/FS work plan, and are a continuation of the operable unit scoping activity described in Section 7.2.2:

- Survey location of sites
- Surface radiation
- Surface geophysical surveys
- Air sampling
- Soil gas surveys
- Biotic surveillance.

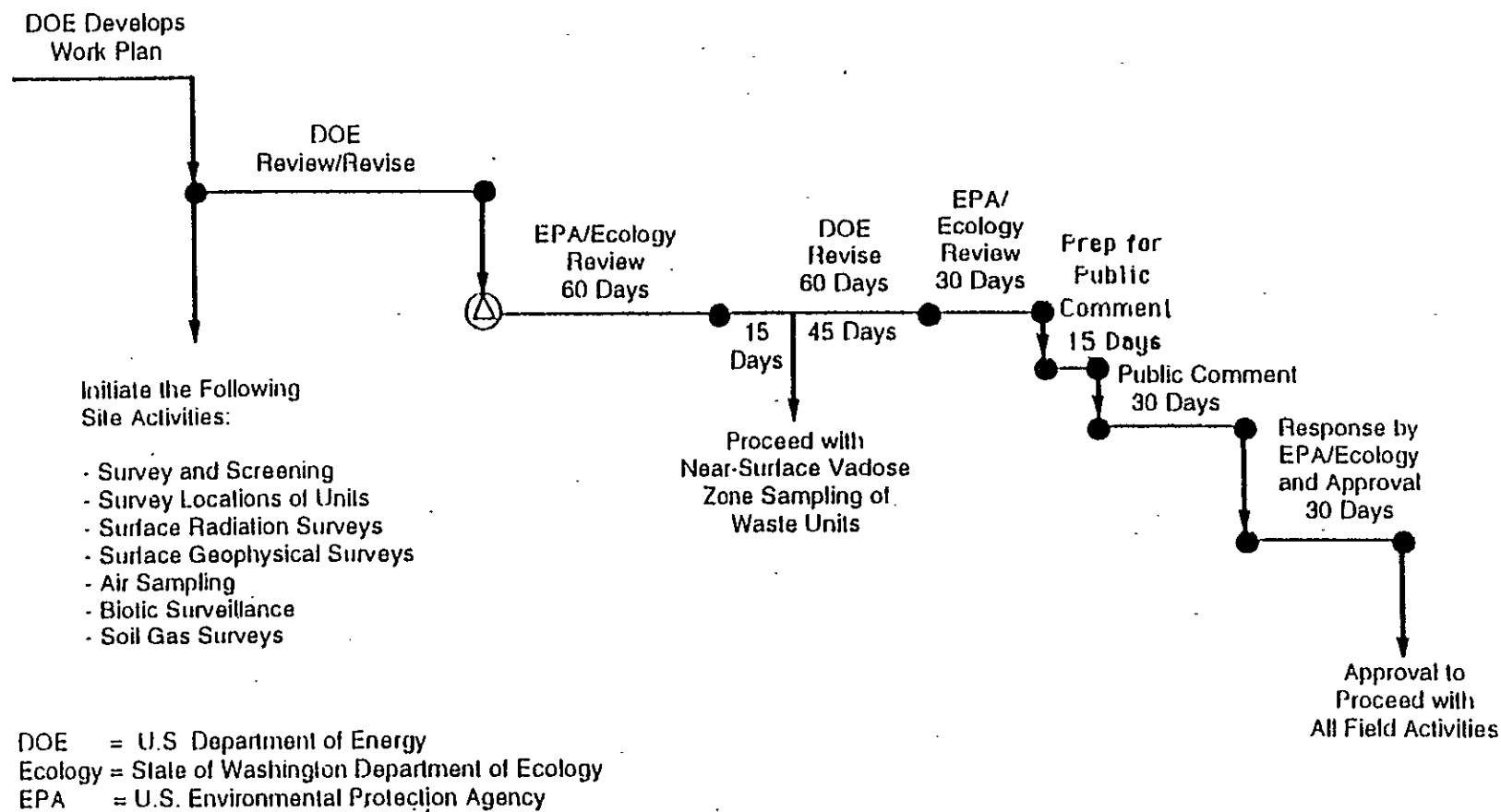
This will allow for a quicker start of characterization activities upon approval of the RI/FS work plan. The results of the site survey and screening activities will be factored into the work plan, as appropriate, during the review and approval process. In addition, to further expedite the process, near-surface vadose zone sampling activities may commence after 2 weeks following the receipt of comments from the lead regulatory agency on the initial draft of the RI/FS work plan if comments from the lead regulatory agency regarding vadose zone sampling have been resolved. Following the public comment period on the work plan, the lead regulatory agency may require the DOE to modify or add to these preliminary activities as necessary to resolve any issues raised by the public. Figure 7-4 depicts the normal review and approval cycle, including public comment, for primary documents (see Section 9.0) as applied to the RI/FS work plans. Figure 7-4 also applies to RFI/CMS work plans, which are discussed in Section 7.4.2.

7.3.3 Remedial Investigation--Phase I

The first phase of the remedial investigation (RI) will focus on defining the nature and extent of contamination through field sampling and laboratory analysis. This will include characterization of waste types, migration routes, volume, and concentration ranges. This information will be used to further develop cleanup requirements.

The DOE will initiate those activities necessary to characterize and assess risks, routes of exposure, fate and transport of contaminants, and potential receptors. It is anticipated that because of the limited data available during this phase to adequately assess risks, including environmental pathways and expected exposure levels, this analysis will be further developed during the feasibility studies (FS).

In some cases, treatability investigations at an operable unit will involve minimal activity. In other cases, treatability investigations at a previously investigated operable unit may be used at other operable units



S8812 008 003

Figure 7-4. Remedial Investigation/Feasibility Study (Resource Conservation and Recovery Act Facility Investigation/Corrective Measures Study) Work Plan Review and Approval.

whenever warranted by site-specific conditions. When these situations exist, it is possible to expedite the RI/FS process by combining the RI Phase I activity with the RI Phase II activity. Any decision to combine the RI Phases I and II must be agreed to in writing by the project manager of the lead regulatory agency, in accordance with the procedures described in Section 12.2, unless it was agreed to during the initial approval of the RI/FS work plan.

The actual schedule for conducting the RI Phase I will be specified for each operable unit in the work schedule (Appendix D). The RI Phase I report is a secondary document, as described in Section 9.0. In cases where the RI Phases I and II have been combined, a RI Phases I and II report shall be prepared by the DOE and submitted to the lead regulatory agency as a primary document, as described in Section 9.0.

7.3.4 Feasibility Study--Phase I

The FS Phase I will be conducted by the DOE for the purpose of developing an array of alternatives to be considered for each operable unit. The DOE will develop the alternatives for remediation by assembling combinations of technologies, and the media to which the technologies could be applied, into alternatives. The alternatives will address all contamination at each operable unit.

The FS Phase I process will begin during the RI Phase I process when sufficient data are available. Such data will consist of analytical data obtained during the RI, as well as historical information regarding waste management units at the operable unit.

Because of the direct relationship between FS Phase I (development of alternatives) and FS Phase II (screening of alternatives--Section 7.3.5), the two phases will be conducted concurrently. This approach should save several months in the RI/FS process, without sacrificing quality of work. Since Phases I and II of the FS will be finished at the same time, the information from both phases will be submitted to the lead regulatory agency in a single FS Phases I and II report.

7.3.5 Feasibility Study--Phase II

The FS Phase II will be a screening step to reduce the number of treatment alternatives for further analysis while reserving a range of options. Screening will be accomplished by considering the alternatives based on effectiveness, implementability, and cost factors. Cost may be used as a factor when comparing alternatives that achieve acceptable standards of performance.

Innovative technologies will be carried through the screening process if they offer the potential for better treatment performance or implementability, fewer or less adverse impacts than other available technologies, or lower costs than demonstrated technologies with comparable environmental results.

As stated in Section 7.3.4, Phases I and II of the FS will be conducted concurrently. Therefore, the FS Phase II will begin as soon as sufficient data from the RI Phase I is obtained. The actual schedule for conducting the FS Phases I and II will be specified for each operable unit in the work

schedule (Appendix D). The FS Phases I and II report, is a primary document as described in Section 9.0.

7.3.6 Remedial Investigation--Phase II

This second phase of the RI will focus on collecting data sufficient to substantiate a decision for remedy selection. A supplemental work plan to the RI/FS work plan will be prepared to cover the RI Phase II activities. This work plan will be placed in the Public Information Repositories. After a literature search is conducted to consider the applicability of various remediation alternatives, treatability investigations may be performed for particular technologies. Additional field data will be collected as needed to further assess alternatives. Treatability investigation work plans will be submitted by DOE to EPA and Ecology when the investigation is related to a specific operable unit per the RI/FS work plan. When a proposed treatability investigation is not specific to an operable unit, the work plan will be submitted to EPA and Ecology per the work schedule in Appendix D. The lead regulatory agency shall determine on a case-by-case basis whether a treatability investigation work plan is a primary document or a secondary document (see Section 9.1) during development of the applicable RI/FS (or RFI/CMS) work plan. For those treatability investigation work plans developed outside of a specific operable unit, both EPA and Ecology shall determine if it is a primary document or secondary document during development of the work schedule. These determinations will be based on the scope, complexity, and significance of the proposed investigation.

Upon completion of the treatability investigation, DOE shall submit a treatability investigation report to EPA and Ecology, documenting the findings of the investigation and applicability to the remedial action project. The treatability investigation report is a secondary document (see Section 9.1).

The actual schedule for conducting the RI Phase II will be specified for each operable unit in the work schedule (Appendix D). The RI Phase II report is a primary document as described in Section 9.0. Where the RI Phase I and Phase II activities have been combined (see Section 7.3.3), the resulting RI Phases I and II report would also be a primary document.

7.3.7 Feasibility Study--Phase III and Proposed Plan

The treatment alternatives passing through the initial screening phases will be analyzed in further detail against a range of factors and compared to one another during the FS Phase III. This final screening process will begin once the FS Phases I and II report is approved by the lead regulatory agency.

The determination for the preferred alternative will be made based on the following general criteria:

- Does the alternative protect human health and the environment and attain ARARs
- Does the alternative significantly and permanently reduce the toxicity, mobility, and volume of hazardous constituents
- Is the alternative technically feasible and reliable.

In addition, the costs of construction and the long-term costs of operation and maintenance will be considered.

The actual schedule for conducting the FS Phase III will be specified for each operable unit in the work schedule (Appendix D) and integrate any planned facility dispositioning per paragraph 14.3. A FS Phase III report will be prepared by the DOE documenting the results of the RI/FS. The FS Phase III report is a primary document as described in Section 9.0.

With consideration of all information generated through the RI/FS process, the DOE shall prepare a proposed plan. This proposed plan is required by CERCLA Section 117(a). The proposed plan must describe an analysis of the feasible alternatives and clearly state why the proposed remedy is the most appropriate for the operable unit; based on written EPA guidance and criteria. Once the lead regulatory agency has concurred on the proposed plan, and the FS Phase III report, the documents will be made available for public review and comment in accordance with the procedures described in Section 10.0. Public review of the proposed plan will provide opportunity for consideration of two additional criteria in preparation of the record of decision. These criteria are State and community preference or concerns about the proposed alternatives.

7.3.8 Record of Decision

After the public comment period on the FS Phase III report and the proposed plan has closed, the record of decision (ROD) process will begin. The ROD will be prepared by the lead regulatory agency and will describe the decision making process for remedy selection, and summarize the alternatives developed, screened, and evaluated in accordance with CERCLA and the NCP. The lead regulatory agency is responsible for reviewing the comments received and will prepare a responsiveness summary that will accompany the ROD. Although all of the RI/FS and preliminary determinations through the process of drafting the ROD will be the responsibility of the lead regulatory agency for a given operable unit, the ROD must be signed and published in the Federal Register by the EPA. The ROD will become part of the administrative record for each operable unit. The lead regulatory agency shall continue its role after issuance of the ROD, including oversight of the remedial design and remedial action phases, as described below.

7.3.9 Remedial Design Phase

Following issuance of the ROD, the remedial design (RD) phase will be initiated in accordance with a schedule agreed to by the project managers. Since any necessary treatability investigations have been performed during the RI Phase II, no additional investigations will be necessary, unless required by the lead regulatory agency. A number of items will be completed during the RD phase, including but not limited to the following:

- Completion of design drawings
- Specification of materials of construction
- Specification of construction procedures
- Specification of all constraints and requirements (e.g., legal)

- Development of construction budget estimate
- Preparation of all necessary and supporting documents.

An RD report will be prepared that includes the designs and schedules for construction of any remediation facility and development of support facilities (lab services, etc.). The RD report is a primary document as described in Section 9.0. The schedule for conducting the RD phase will be specified for each operable unit in the work schedule (Appendix D).

7.3.10 Remedial Action Phase

The remedial action (RA) phase will be initiated in accordance with a schedule agreed to by the project managers. The RA phase is the implementation of the detailed actions developed under the RD. The RA will include construction of any support facility, as specified in the RD report, as well as operation of the facility to effect the selected RA at that operable unit.

An RA work plan will be developed for each operable unit detailing the plans for RA. The RA work plan is a primary document as described in Section 9.0. The schedule for conducting the RA phase will be specified for each operable unit in the work schedule (Appendix D).

Upon satisfactory completion of the RA phase for a given operable unit, the lead regulatory agency shall issue a certificate of completion to the DOE for that operable unit. At the discretion of the lead regulatory agency, a certificate of completion may be issued for completion of a portion of the RA phase for an operable unit.

7.3.11 Operation and Maintenance

The operation and maintenance (O&M) phase will be initiated at each operable unit when the RA phase has been completed. This phase will include inspections and monitoring as described in the O&M plan. In all cases where waste or contamination is left in place as part of the RA, the O&M phase is expected to be a long-term activity. Where waste or contamination is left in place, the operable unit will be evaluated by the lead regulatory agency at least every 5 years during the O&M phase to determine whether continued O&M activity is indicated or further RA is required. The lead regulatory agency may conduct more frequent evaluations should data indicate this is necessary to ensure effective implementation of the RA. All O&M data and records obtained to that date, along with any additional information provided by the DOE, will be used in that evaluation.

In cases where all waste or contamination is removed or destroyed, a short period for the O&M phase for specific units within an operable unit may be specified by the lead regulatory agency. The lead regulatory agency may, where appropriate, allow for the O&M phase to be terminated for certain units within an operable unit while requiring O&M to be continued at other units. In these cases, certain units may be considered for delisting in accordance with the NCP, after the O&M phase has been completed.

The O&M plan is a primary document as described in Section 9.0. The schedule for conducting significant steps described in the O&M plan are specified for each operable unit in the work schedule (Appendix D).

7.4 RESOURCE CONSERVATION AND RECOVERY ACT PAST-PRACTICE UNIT PROCESS

The RPP processes are the subject of this Section. These authorities were introduced and generally described in Section 5.2. The RCRA Sections 3004(u), 3004(v), and 3008(h) became effective when Congress reauthorized RCRA on November 8, 1984. This reauthorization is known as the Hazardous and Solid Waste Amendments of 1984 (HSWA).

7.4.1 Resource Conservation and Recovery Act Facility Assessment

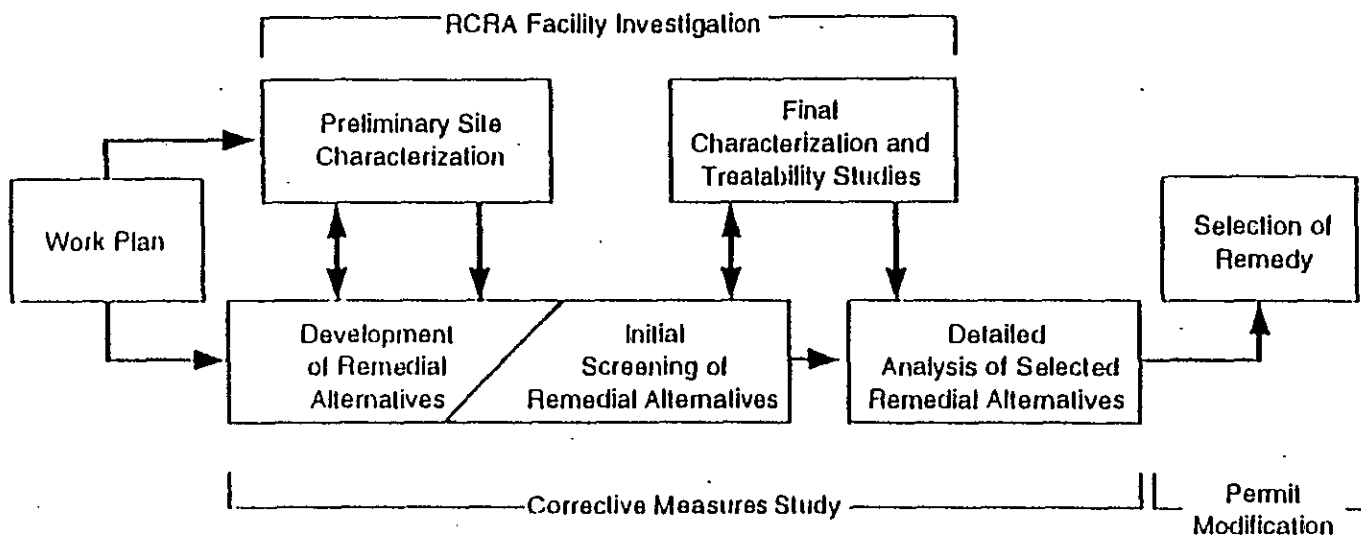
For those units that are defined as RPP units, (see definition in Section 7.1), the lead regulatory agency for an operable unit may require the DOE to conduct a RCRA facility assessment (RFA) of all or some of the RPP units within that operable unit. The need for an RFA is based on whether sufficient knowledge exists to determine if an RFI is required. Based on the results of the RFA, the lead regulatory agency may require additional information from the DOE, or it may determine that no further investigation or corrective action is required for any of the RPP units within the operable unit. Where Ecology is the lead regulatory agency prior to HSWA delegation, the project manager for the EPA must agree, in writing, before any individual unit is dismissed from further investigation requirements through the RFA. The project manager for the lead regulatory agency for that operable unit may direct the DOE to conduct a RFI based on results of the RFA.

The RFA will be developed in accordance with current applicable regulations, guidance documents, and written policy available at the time the RFA is begun. An RFA report will be prepared documenting the results of the RFA. The RFA report is a primary document as described in Section 9.0. If the lead regulatory agency determines that further investigation is necessary, the project manager for the lead regulatory agency will direct the DOE to prepare an RFI report, as described below.

In some cases, sufficient information may already exist that indicates that further investigation will be required. In these cases the RFA process will be bypassed and effort will be focused on the RFI/CMS. Figure 7-5 shows the normal sequence of events that occur during the RFI/CMS process.

7.4.2 Resource Conservation and Recovery Act Facility Investigation

Each RCRA Facility Investigation (RFI) will address all units within a specific operable unit, as identified in the RFI/CMS work plan. Certain operable units also contain TSD units, primarily land disposal units, that are to be investigated and managed in conjunction with past-practice units. The information necessary for performing RCRA closures within an operable unit will be provided in coordination with various RFI/CMS documents as discussed in Section 5.5. The RFI/CMS work plan will be functionally equivalent to an RI/FS work plan (see Section 7.3.2). Timing for submittal of the work plan will be in accordance with the work schedule (Appendix D).



S8902098.2

Figure 7-5. Overview of the RCRA Facility Investigation/Corrective Measures Study Process.

An RFI report will be prepared by the DOE, and it will document the results of the RFI. The RFI report is a primary document as described in Section 9.0. The schedule for conducting the RFI will be specified for each operable unit in the work schedule (Appendix D) and integrate any planned facility dispositioning per paragraph 14.3. The parties agree that the information obtained through the RFI must be functionally equivalent to information gathered in the CERCLA process through the RI Phases I and II, as described in Sections 7.3.3 and 7.3.6.

Based on the results of the RFI, the lead regulatory agency may determine that no further investigation or corrective action is required for each RPP unit in an operable unit. Where Ecology is the lead regulatory agency prior to the HSWA delegation, the project manager for the EPA must agree, in writing, before any individual unit is dismissed from further investigation requirements through the RFI. The project manager from the lead regulatory agency for that operable unit may direct the DOE to conduct a CMS based on results of the RFI.

7.4.3 Corrective Measures Study

A Corrective Measures Study (CMS) shall be prepared by the DOE and will include an identification and development of the corrective measure alternative(s), an evaluation of these alternatives, and a justification for the recommended alternative. The CMS will include development of a cost estimate for each alternative considered.

A CMS report documenting the results of the study will be prepared by the DOE. The CMS report is a primary document as described in Section 9.0. The schedule for conducting the CMS will be specified for each operable unit in the work schedule (Appendix D). The CMS report will become the basis for revision of the RCRA permit through the modification or revocation and reissuance processes described in Section 6.2. The parties agree that the information obtained through the CMS must be functionally equivalent to information gathered in the CERCLA process through the FS Phases I, II, and III as described in Sections 7.3.4, 7.3.5, and 7.3.7.

The lead regulatory agency for the operable unit shall continue its oversight role through the corrective measures implementation (CMI) phase and through any long-term monitoring or maintenance phase that is specified in the CMI work plan.

7.4.4 Corrective Measures Implementation

The DOE will initiate, maintain progress toward completion of, and complete any necessary corrective action for all RPP units within each operable unit in accordance with the CMI work plan. This will be done in accordance with current applicable regulations, guidance documents, and written policy available at any time during the corrective action process. It is agreed by the parties that the content of the CMI work plan will be considered to be functionally equivalent to that of the RA work plan described in Section 7.3.10.

The CMI work plan and the corrective measures design (CMD) report, which are produced as part of the CMI phase, are primary documents as described in Section 9.0. The schedule for developing the CMI work plan and conducting the

CMI will be specified for each operable unit in the work schedule (Appendix D). The CMI phase will be conducted in accordance with the schedule of compliance specified in the RCRA permit and the work schedule (Appendix D).

Upon satisfactory completion of the CMI phase as described in the CMI work plan for a given operable unit, the lead regulatory agency shall issue a certificate of completion to the DOE for that operable unit. At the discretion of the lead regulatory agency, a certificate of completion may be issued for completion of a portion of the CMI phase for an operable unit.

7.4.5 Offsite Releases and Corrective Action

In the event that hazardous constituents or contamination from a landfill unit, surface impoundment, or waste pile is found to have migrated beyond the boundaries of the Hanford Site, the lead regulatory agency may require that corrective action for such contamination be addressed in accordance with RCRA Section 3004(v). The RCRA Section 3004(v) corrective action authority will be implemented through a schedule of compliance. The DOE shall make every reasonable effort to gain access to investigate and remediate offsite contamination. The DOE will document attempts to attain offsite access for investigative work and corrective action in such cases, in accordance with the access provisions as specified in Article XXXVII of the Agreement. Where necessary to accomplish offsite RA, such releases may be addressed by the lead regulatory agency under CERCLA authority.

The DOE will initiate, maintain progress toward completion of, and complete any offsite corrective action required by the EPA under the authority of RCRA Section 3004(v), in accordance with the time frames specified in the work schedule (Appendix D) and in accordance with current applicable regulations, guidance documents, and written policy available at any time during the corrective action process.

7.5 CLEANUP REQUIREMENTS

In accordance with Section 121(d) of CERCLA, the DOE will comply with all ARARs when hazardous substances, pollutants, or contaminants are to remain onsite as part of RAs. These requirements include cleanup standards, standards of control, and other substantive environmental protection requirements and criteria for hazardous substances as specified under Federal or State laws and regulations. The parties intend that ARARs, as appropriate, will apply at units being managed under the RPP program at the Hanford Site to ensure continuity between the RCRA and CERCLA authorities.

"Applicable requirements" are those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law. These requirements specifically address a hazardous substance, pollutant, contaminant, hazardous waste, hazardous constituent, RA, location, or other circumstance at the Hanford Site.

"Relevant and appropriate requirements" are those which do not meet the definition of applicable requirements, yet pertain to problems or situations similar to those encountered in the cleanup effort at the Hanford Site. Such requirements must be suited to the unit under consideration and must be both relevant and appropriate to the situation.

The ARARs are classified into three general categories as follows:

- Ambient or chemical-specific requirements. These are established numeric criteria for various constituents. These criteria are usually set from risk-based or health-based values or methodologies
- Performance, design, or other action-specific requirements. These are usually technology or activity-based requirements or limitations on actions taken with respect to a given hazardous substance or hazardous constituent
- Location-specific requirements. These are restrictions placed on the concentration of hazardous substances or hazardous constituents or on the conduct of activities solely because they occur in special locations.

In addition to ARARs, certain non-promulgated Federal or State criteria, advisories, guidance, and proposed standards may be used to establish cleanup standards. These "to-be-considered" criteria can be imposed if necessary to assure protection of human health and the environment but are not necessarily legally binding. These criteria will be specified by the lead regulatory agency in cases where an ARAR does not exist, or in cases where the lead regulatory agency does not believe the ARAR is protective of human health and the environment given the site specific conditions.

For units which are selected for abatement actions or interim actions, as described in Sections 7.2.3 and 7.2.4, ARARs will be applied, where appropriate, recognizing that these units will later be subject to ARARs during the final remedial or corrective action process.

Compliance with an ARAR may be waived in certain circumstances, as specified in current EPA guidance on cleanup requirements. Waivers will be limited to the following situations:

- Cases in which compliance with an ARAR will result in a greater risk to human health and the environment than an alternative option.
- Cases in which compliance with an ARAR is technically impracticable from an engineering perspective.
- Cases in which alternative treatment methods to those specified as ARARs have been shown to result in equivalent standards of performance.
- With respect to a State standard, requirement, criteria, or limitation, the State has not consistently applied procedures to establish a standard, requirement or criteria or demonstrated the intention to consistently apply the standard, requirement, criteria, or limitation in similar circumstances at other RAs.

Federal statutes, regulations, and "to-be-considered" criteria from which cleanup requirements will be developed are included in the current EPA guidance document, "CERCLA Compliance with Other Laws Manual." The following list identifies the key state statutes and regulations from which cleanup requirements will be developed for the Hanford Site. This list is not

intended to be inclusive; other standards may be applicable on a case-by-case basis. In addition, this list can be expanded as new State statutes and regulations become effective:

- Washington State Environmental Policy Act--Chapter 43.21C RCW, and implementing regulations;
 - Guidelines Interpreting and Implementing the State Environmental Policy Act--197-11 WAC
- Water Well Construction Act--Chapter 18.104 RCW, and implementing regulations;
 - Minimum Standards for Construction and Maintenance of Water Wells--173-160 WAC
- Washington Clean Air Act--Chapter 70.94 RCW
- Solid Waste Management, Recovery and Recycling Act--Chapter 70.95 RCW, and implementing regulations;
 - Minimum Functional Standards for Solid Waste Handling--173-304 WAC
- Nuclear Energy and Radiation Act--Chapter 70.98 RCW, and implementing regulations;
 - Standards for Protection Against Radiation--402-24 WAC
 - Licensing Requirements for Land Disposal of Radioactive Waste--402-61 WAC
 - Monitoring and Enforcement of Air Quality and Emission Standards for Radionuclides--402-80 WAC
- Hazardous Waste Management--Chapter 70.105 RCW, and implementing regulations;
 - Dangerous Waste Regulations--173-303 WAC
- Model Toxics Control Act--Chapter 70.105D RCW, and implementing regulations;
 - Model Toxics Control Act Cleanup Regulation--173-340 WAC
- Washington State Water Code--Chapter 90.03 RCW
- Regulation of Public Groundwaters--Chapter 90.44 RCW
- Water Pollution Control Act--Chapter 90.48 RCW, and implementing regulations;
 - Water Quality Standards for Water of the State of Washington--173-201 WAC

State Waste Discharge Program--173-216 WAC

Underground Injection Control Program--173-218
WAC

National Pollution Discharge Elimination System
Permit Program--173-220 WAC

- Water Resources Act of 1971--Chapter 90.54 RCW
- Shoreline Management Act--Chapter 90.58 RCW and implementing regulations, 173-14 through 173-22 WAC

The DOE shall use the Federal and State sources of information, as mentioned above, in developing proposed ARARs during the RI/FS (or RFI/CMS) process. The detailed documentation of ARARs shall be provided in an appendix to the FS Phase III Report (or CMS report).

The lead regulatory agency for each CERCLA operable unit shall prepare a summary of the rationale for selection of ARARs for the ROD. The lead regulatory agency of each RPP operable unit shall prepare a summary of the rationale for selection of the ARARs for the fact sheet that will accompany the CMS report (including permit modification or permit revocation and reissuance, as applicable).

In the event that new standards are developed subsequent to initiation of RA at any operable unit, and these standards result in revised ARARs or "to-be-considered" criteria, these new standards will be considered by the lead regulatory agency as part of the review conducted at least every five years under Section 121(c) of CERCLA.

7.6 NATURAL RESOURCE TRUSTEESHIPS

Section 107 of CERCLA imposes liability for damages for injury to, destruction of, or loss of natural resources. It also provides for the designation of Federal and State trustees, who shall be responsible for, among other things, the assessment of damages for injury to, destruction of, or loss of natural resources. Current regulations concerning such trustees are in the NCP, 40 CFR Part 300, Subpart G.

The DOE shall notify appropriate Federal and State natural resource trustees as required by section 104(b)(2) of CERCLA and Section 2(e)(2) of Executive Order 12580.

In addition to DOE, the relevant Federal trustees for the Hanford Site are the U.S. Department of Commerce and the U.S. Department of the Interior (DOI). Their respective roles are described below.

7.6.1 National Oceanic and Atmospheric Administration

The National Oceanic and Atmospheric Administration (NOAA) acts on behalf of the Secretary of Commerce as a Federal trustee for living and nonliving natural resources in coastal and marine areas. Resources of concern to the NOAA include all life stages, wherever they occur, of fishery resources of the exclusive economic zone and continental shelf and anadromous species

throughout their ranges. For resources in coastal waters and anadromous fish streams, the NOAA may be a co-trustee with the DOI, other Federal land management agencies, and the affected States, and Indian Tribes. Chinook, coho, and sockeye salmon, as well as steelhead trout, are the anadromous species that utilize the Hanford Reach for spawning, rearing, foraging, and as a migratory corridor.

Under an existing interagency agreement with the EPA, the NOAA will provide a Preliminary Natural Resource Survey (PNRS) to the EPA by December 31, 1988, detailing trust species of concern at the four aggregate areas at the Hanford Site (the 100, 200, 300, and 1100 Areas). The NOAA will also provide technical review, at the operable unit level, of RI/FS work plans, RI reports, FS reports, RD reports, and RA work plans, as appropriate. These technical reviews will be done to ensure that potential impacts to anadromous fish in the Hanford Reach are addressed in the CERCLA process. The NOAA will coordinate with other natural resource trustees, as appropriate, to preclude duplication of effort. The DOE will provide the NOAA with a copy of documents listed above at the time of submission to the EPA. The NOAA will provide technical comments to the EPA for incorporation and transmittal to the DOE. Timing for submittal of comments by the NOAA will be consistent with the time frames specified for primary document review in Section 9.2. The PNRS provided by the NOAA and each set of technical comments will become part of the administrative record.

7.6.2 Department of the Interior

The DOI responsibilities as a natural resource trustee will be shared by three separate bureaus within the DOI. These bureaus are the U.S. Geological Survey, U.S. Fish and Wildlife Service, and the Bureau of Indian Affairs. Each bureau will prepare a report for DOI based on its respective responsibility as a natural resource trustee. The DOI will consolidate these reports and issue a PNRS. The DOI will coordinate with other natural resource trustees, as appropriate, to preclude duplication of effort. The PNRS conducted by DOI will become part of the administrative record.

The PNRS will be completed under an existing interagency agreement between the DOI and the EPA. If further work beyond the PNRS is undertaken by the DOI, such work will be funded through DOI sources.

7.7 HEALTH ASSESSMENTS

The Agency for Toxic Substances and Disease Registry (ATSDR) is a part of the U.S. Public Health Service, which is under the U.S. Department of Health and Human Services. The ATSDR was created by Congress to help implement the health-related sections of laws that protect the public from hazardous waste and environmental spills of hazardous substances. The CERCLA requires ATSDR to conduct a health assessment within one year following proposal to the NPL for any site proposed after October 17, 1986.

The ATSDR health assessment is the result of the evaluation of data and information on the release of hazardous substances into the environment. Its purpose is to assess any current or future impacts on public health, to develop health advisories or other health recommendations, and to identify studies or actions needed to evaluate and mitigate or prevent adverse human health effects.

The ATSDR will prepare a preliminary health assessment for each of the four Hanford NPL areas (the 100, 200, 300, and 1100 Areas). Since the RI Phase I reports for these areas will not be available within one year following the proposal of Hanford to the NPL, these preliminary health assessments will be based on the best available information.

As additional information becomes available, and as appropriate, ATSDR may, at its discretion, expand these preliminary health assessments into full health assessments adding to the overall characterization of the site, or prepare addenda to the health assessments addressing the public health impact of either individual or a combination of operable units at the site.

The health assessments, including any addenda, will become part of the administrative record.

7.8 QUALITY ASSURANCE

The level of quality assurance and quality control (QA/QC) for the collection, preservation, transportation, and analysis of each sample which is required for implementation of this Agreement shall be dependent upon the data quality objectives for the sample. Such data quality objectives shall be specified in RI/FS or RFI/CMS work plans or in other work plans that may be used to describe sampling and analyses at CERCLA or RCRA past-practice units.

The QA/QC requirements shall range from those necessary for non-laboratory field screening activities to those necessary to support a comprehensive laboratory analysis that will be used in final decision-making. This range of QA/QC options is included in the "Data Quality Strategy for Hanford Site Characterization" (as listed in Appendix F). This document is subject to approval by EPA and Ecology.

Based upon the data quality objectives, the DOE shall comply with EPA guidance documents for QA/QC and sampling and analysis activities which are taken to implement the Agreement. Such guidance includes:

- "Guidelines and Specifications for Preparing Quality Assurance Program Plans" (QAMS-004/80);
- "Interim Guidance and Specifications for Preparing Quality Assurance Project Plans" (QAMS-005/80); and
- "Data Quality Objectives for Remedial Response Activities" (EPA/540/G-87/003 and 004).

In regard to quality assurance requirements for construction of land disposal facilities, DOE shall comply with "Technical Guidance Document: Construction Quality Assurance for Land Disposal Facilities" (EPA/530-SW-86-031).

For analytical chemistry and radiological laboratories, the QA/QC plans must include the elements listed in "Guidance on Preparation of Laboratory Quality Assurance Plans" (as listed in Appendix F). DOE shall submit laboratory QA/QC plans to EPA and Ecology for review as secondary documents prior to use of that laboratory. In the event that DOE fails to demonstrate to the lead regulatory agency that data generated pursuant to this agreement

was obtained in accordance with the QA/QC requirements of this section, including laboratory QA/QC plans, DOE shall repeat sampling or analysis as required by the lead regulatory agency. Such action by the lead regulatory agency shall not preclude any other action which may be taken pursuant to this Agreement. For other data, Ecology or EPA may request DOE to provide QA/QC documentation. Any such data that does not meet the QA/QC standards required by this section shall be clearly flagged and noted to indicate this fact.

Add the following to Section 9.0, Table 9-1 of the Action Plan:

Preclosure Work Plan

Add the following to the end of Paragraph 10.10 of the Action Plan:

3. In addition to item 2. above, DOE will provide copies of key documents and other pertinent material to the tribes at the time they are provided to EPA and Ecology for review. Such documents include those identified in tables 9-1 and 9-2 of this Action Plan, but will also include other technical plans, studies and reports related to this agreement. Other pertinent material includes, but is not limited to, draft change packages, Agreements In Principle between the three parties, and budget information. For large documents containing supporting technical information (e.g. laboratory data packages), DOE will only provide copies of the transmittal letter to the tribes. The document will then be provided upon request. DOE will periodically consult with the tribes to ensure that they are receiving the appropriate documents and material in accordance with this paragraph.

The following text represents a new section which is hereby added to the Hanford Federal Facility Agreement and Consent Order Action Plan. (This section of Amendment 5 is portrayed without shading or strikeout indicators since it consists entirely of new text to be added.)

FACILITY DECOMMISSIONING PROCESS

SECTION 14.0

TABLE OF CONTENTS

14.1	Introduction	
14.1.1	Background	
14.1.2	Applicability	
14.1.3	Decommissioning Relationships and Key Planning Documentation	
14.2	Facility Operations	
14.3	Decommissioning Process Planning	
14.3.1	Long-Term Planning	
14.3.2	Tri-Party Agreement Negotiation	
14.3.3	Biennial Review and Update	
14.4	General Decommissioning Process	
14.5	Transition Phase	
14.5.1	Transition Planning	
14.5.2	Project Management Plan	
14.5.3	Transition End Point Criteria	
14.5.4	Surveillance & Maintenance Plan	
14.5.5	Proceed with and Complete Transition Activities	
14.6	Surveillance and Maintenance Phase	
14.6.1	Initiation of Surveillance and Maintenance Phase	
14.6.2	Biennial Evaluations and Ongoing Activities	
14.6.3	Ongoing Surveillance and Maintenance Activities	
14.7	Disposition Phase	
14.7.1	Disposition Phase Planning	
14.7.2	Project Management Plan	
14.7.3	Disposition End State Criteria	
14.7.4	Proceed with and Complete Disposition Phase Activities	
14.7.5	Verification of Disposition End State	
14.7.6	Integration of Disposition Phase with Operable Units	
14.8	Preclosure Work Plan and RCRA Closure Plan	
14.9	Surveillance and Maintenance Surplus Facilities Management	
14.9.1	Surveillance and Maintenance Phase	
14.9.2	Disposition Phase	

14.1 INTRODUCTION

The facility decommissioning process defines the approach by which DOE, with involvement of the regulatory agencies, will take a facility from operational status to its end state condition (final disposition) at Hanford. This is accomplished by the completion of facility transition, surveillance and maintenance (S&M) and disposition phase activities. The process is designed to integrate DOE-HQ guidance as specified by the *U.S. Department of Energy Office of Environmental Restoration (EM-40) Decontamination and Decommissioning Guidance Document, XX/XX/94* (hereafter referred to as the EM-40 Guidance Document) and facilitate compliance with environmental regulations, including RCRA closure, post closure and CERCLA remedial action requirements. Facility decommissioning at Hanford will proceed on a priority-based path that results in an expedient and cost efficient transition of facilities to a safe and stable condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment. The methodology allows for cases where higher priority Hanford cleanup activities warrant deferring regulated unit closure actions until prioritization decisions are made to proceed with the disposition phase.

Notwithstanding any other provision of Section 14, EPA and Ecology reserve the right to require closure in accordance with Federal and State hazardous waste law, and the TPA, and to require response or corrective actions in accordance with RCRA and CERCLA and the TPA, at any time. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

14.1.1 Background

The Department of Energy consolidated virtually all of its waste management, remedial action and decontamination and decommissioning (D&D) program activities in 1989 into the Office of Environmental Management (EM). Within EM, the Office of Environmental Restoration was assigned responsibility for performing remedial actions, S&M and dispositioning activities for DOE facilities.

With the down-sizing of both nuclear weapons inventories and nuclear material production capabilities, the DOE-HQ established the Office of Facility Transition in mid-1992. This office is chartered with management of the transition from operational status to shutdown status for the numerous facilities used for nuclear material production or otherwise involved in the DOE nuclear program.

14.1.2 Applicability

This section applies to the transition, the surveillance and maintenance, and/or the disposition of key facilities located on the Hanford Site that are not fully addressed as part of Section 6.0 (TSD Process) or Section 7.0 (Past-Practice Process) of this Action Plan. Facilities that the parties agree are subject to Section 14 will be decommissioned in accordance with the provisions of this section, and any milestones established specific to those facilities.

If there is a conflict between the provisions of this section and of a specific milestone, the provisions of the milestone will prevail. This section does not apply to the following:

- Any waste disposal unit (e. g. crib, pond, ditch, landfill)
- RCRA treatment or storage units either closed or scheduled for closure under Section 6.0 that result in the final disposition of the facility, or result in a remaining facility that does not qualify as a "key facility" per the definition below.
- Any facility which is fully addressed as part of a past practice operable unit under Section 7.0 (i.e., N-area pilot project), or which is addressed under Section 7.0 to a condition which results in a remaining facility that does not qualify as a "key facility" per the definition below.
- Facilities on the Hanford Site transferred from the Operations phase to the S&M Phase prior to 1992 (prior to facility transition projects). These facilities are collectively defined in this document as S&M surplus facilities. Management of S&M surplus facilities during the S&M and Disposition Phases is discussed in Section 14.9.

Key facilities managed under Section 14 include facilities currently identified for transition (i.e., PUREX, UO3 and FFTF), existing operating facilities, and other facilities that may be constructed in the future.

Key facilities are identified by the three parties on a case by case basis, generally based upon the following criteria:

- Facilities that do not fall into any of the categories summarized in the bullets above,
- Facilities that will undergo a surveillance and maintenance period greater than 180 days with hazardous substances to be left in place,
- Facilities where physical closure actions must be performed in conjunction with facility disposition, and/or
- Facilities that may be addressed in conjunction with any other facility which qualifies as a key facility.

Key facilities do not include uncontaminated structures (i.e. contains no hazardous substances), or facilities which are fully dispositioned following a decision to remove them from use.

Only with the agreement of all three parties may key facilities (or portions thereof) be used for alternative beneficial uses, and be addressed independent of Section 14.

14.1.3 Decommissioning Relationships and Key Planning Documentation

Table 14.1 shows the relationship between phases, processes and planning documentation that support the overall decommissioning process. A general description of key planning documents is included here. Additional information is provided in following text specific to the individual phases. Definitions specific to the facility decommissioning process are included in Appendix A of this document. The process described in Section 9.3 will be used to modify applicable documentation.

Table 14.1 Decommissioning Process Relationships

DECOMMISSIONING PHASES	FACILITY PROCESSES	KEY PLANNING DOCUMENTS
Transition	Stabilization Deactivation Surveillance Maintenance Decontamination	Project Management Plan
		Facility Transition End Point Criteria Document
		Preclosure Work Plan
Surveillance and Maintenance	Surveillance Maintenance Deactivation* Decontamination*	Surveillance and Maintenance Plan
Disposition	Decontamination Dismantlement Entombment Closure Site Restoration	Project Management Plan
		Facility Disposition End State Criteria Document
		RCRA Closure Plan**

* Completed on a case-by-case basis to further reduce facility surveillance and maintenance expenses.

** RCRA Closure Plan applicable to TSD units within the facility.

Facility Transition End Point Criteria Document: A document developed during the transition phase that establishes the physical state of the systems and spaces within the facility to be achieved at the end of the transition phase. This document is used to satisfy programmatic requirements to transition to the S&M phase. The actual condition of the facility at the end of transition will be documented as part of the S&M plan.

RCRA Closure Plan: A plan developed to specifically address and ensure compliance with the requirements of Washington's Dangerous Waste Regulations, Chapter 173-303, Washington Administrative Code (WAC) for units in the

facility used for treatment, storage or disposal of dangerous wastes. Closure plans consist of nine basic chapters and are consistent with the format currently used for all Hanford Site closure activities. TSD unit closure plans will be submitted to Ecology and EPA during the disposition phase planning process, and will be coordinated with approved disposition end state criteria.

Preclosure Work Plan: Prior to closure plan submittal, a preclosure work plan will be submitted to Ecology and EPA during the transition phase. This preclosure work plan will contain, but is not limited to elements summarized in Table 14.2. This preclosure work plan is based in part on the facility transition end point criteria document and S&M plan. The transition end point criteria document and the S&M plan are considered part of the preclosure work plan as they pertain to information related to TSD units.

Project Management Plan: An internal DOE management plan prepared to aid in governing the successful completion of a project. The Project Management Plan (PMP) defines DOE and DOE contractor organization and responsibilities for executing the project. It outlines the work breakdown structure for the activities, clearly identifying the scope of work based on the technical criteria established. This document incorporates cost and schedule planning. The PMP is used to establish cost controls and milestones for tracking and reporting status on key processes and activities from start to finish of the phase. Project Management Plans are prepared during the transition and disposition phases.

Surveillance and Maintenance Plan: A plan outlining facility specific activities taken to address essential systems monitoring, maintenance and operation requirements necessary at a transitioned facility to ensure efficient, cost effective maintenance of the facility in a safe condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment until final disposition is completed.

Facility Disposition End State Criteria Document: A document developed during the disposition phase that establishes the physical state of systems and spaces within the facility to be achieved at the conclusion of the disposition phase. This document may be incorporated into another disposition planning document.

14.2 FACILITY OPERATIONS

Facility operations precede the decommissioning process and are briefly addressed in this section. Prior to receiving a formal shutdown notice from DOE-HQ, facilities that do not have a future mission may begin preparing for the transition phase of the decommissioning process. Preparation may include conducting final process vessel clean out runs in order to expedite transition phase activities and to avoid the necessity for operational permitting at process vessels containing hazardous materials for storage and/or treatment following a determination that their contents are dangerous wastes. Facility personnel may also initiate preliminary development of transition end point criteria to describe the physical state of the systems and spaces within the

facility at the end of the transition phase. The process of developing transition end point criteria will be structured to specifically incorporate regulatory, tribal and stakeholder input and involvement. Once a shutdown order has been received or a separate agreement is made by the three parties, the facility will enter the transition phase as described in Section 14.5.

14.3 DECOMMISSIONING PROCESS PLANNING

The parties agree that sufficient up front planning for facilities that will undergo decommissioning is necessary to support the budget planning process and to facilitate integration and prioritization of decommissioning with other Hanford cleanup efforts. The parties also recognize, however, that there may be unanticipated situations in which it will be necessary to take immediate actions to abate significant threats to human health or the environment.

14.3.1 Long-Term Planning

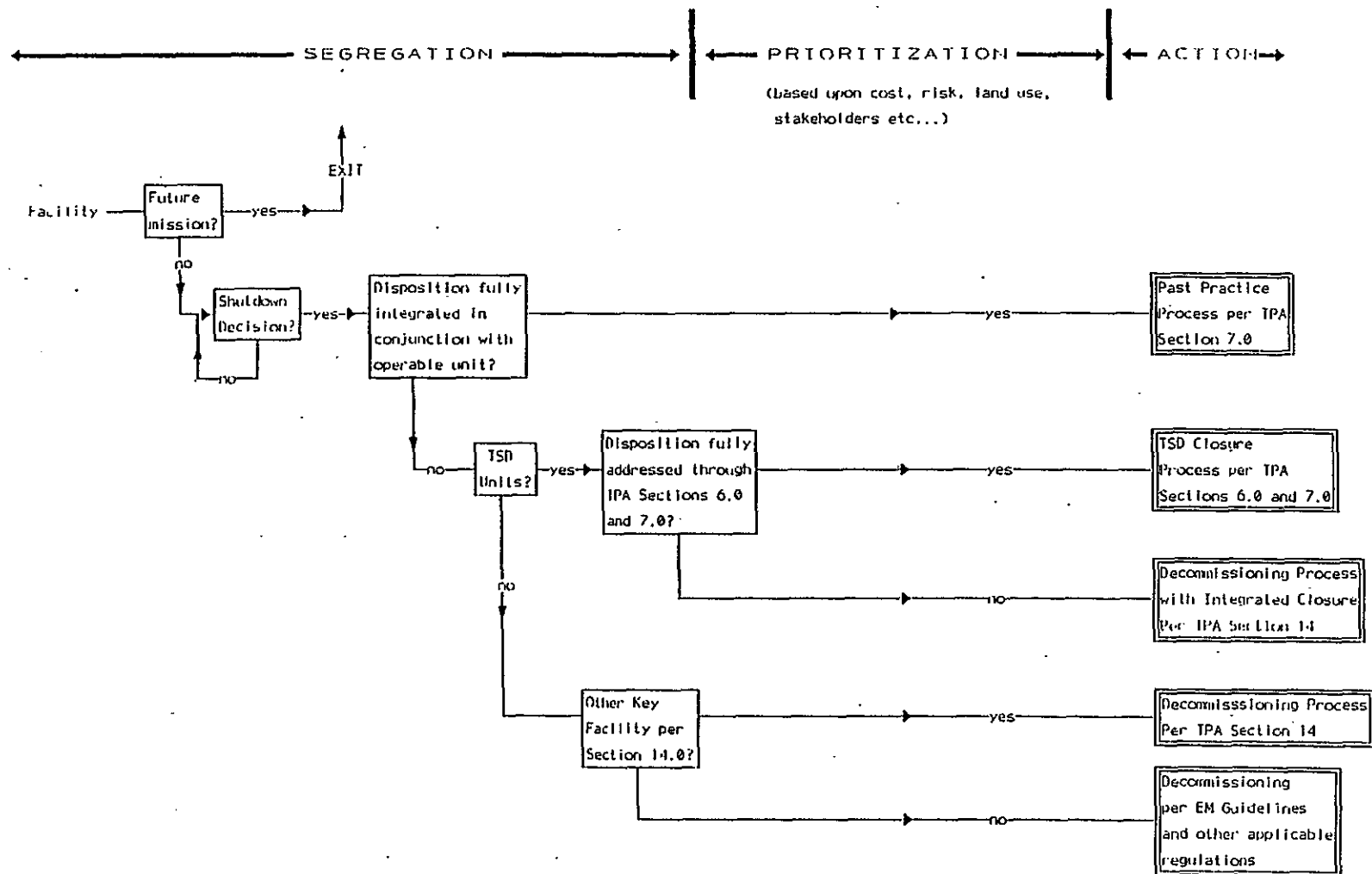
DOE will develop and submit a long-term facility decommissioning plan covering key Hanford facilities to Ecology and EPA for review by June, 1996. This plan and associated TPA commitments (including those made pursuant to paragraph 14.3.2 below) are expected to provide the mechanism by which the three parties will address decommissioning of existing and future facilities on the Hanford Site. The plan will categorize facilities through a series of key decision-making questions such as the logic process shown in Figure 14.1. The parties recognize that there are a large number of facilities on the Hanford Site. However, many of the facilities are administrative and/or small in nature and will fall into the category of non-key facilities. A listing of these non-key facilities will be maintained for information purposes. Many facilities are associated with and may be addressed as part of a larger facility. In these cases, facility complexes will be identified as one key facility for the purpose of implementing the decommissioning process.

For facilities identified as candidates for the decommissioning process under this section, the plan will include a long-term road map depicting the approximate time periods that the key facilities (or facility complexes) are expected to undergo transition, surveillance and maintenance, and/or disposition. The road map is for use by the three parties to assist in the planning process in order to integrate and prioritize work, and is not considered a committed schedule. Such commitments will be established under the TPA (see paragraph 14.3.2 below). This plan will be updated biennially as part of the biennial review (see 14.3.3 below).

14.3.2 Tri-Party Agreement Negotiation

The long-term facility decommissioning plan will be used by the three parties as an aid in scheduling future decommissioning related negotiations. Such negotiations will be coordinated with the facility planning phases discussed under paragraphs 14.5 and 14.7.

Figure 14.1 PREDECOMMISSIONING PLANNING



14.3.3 Biennial Review and Update

The three parties will conduct a biennial review of facility/unit status, the long-term facility decommissioning plan, and associated TPA commitments, and discuss current priorities and assess what changes are necessary. Based on this review and latest DOE guidance associated with the future use of facilities, DOE will update and submit the long-term facility decommissioning plan and any draft changes addressing proposed TPA modifications to EPA and Ecology for review.

14.4 GENERAL DECOMMISSIONING PROCESS

The typical facility decommissioning process, shown in Figure 14.2, depicts the sequential phases a facility undergoes following facility operations and includes transition, surveillance and maintenance (S&M), and disposition. This process is normally initiated following a decision from DOE-HQ to shutdown a subject facility and proceed with decommissioning activities. The process time frame is established by milestones and associated target actions negotiated as part of the Tri-Party Agreement, and in most cases will be established one phase at a time.

Figure 14.2 Typical Decommissioning Process

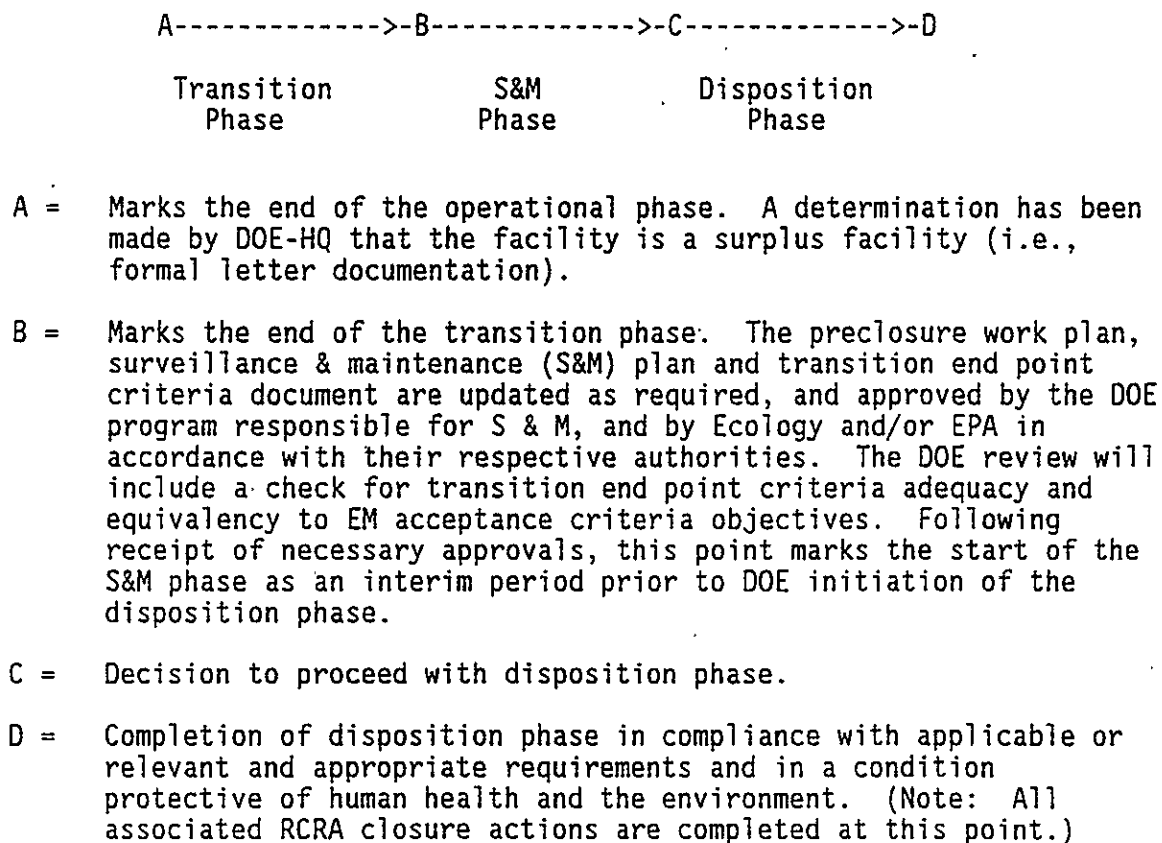


Figure 14.2 has been expanded in Figures 14.3 - 14.5 to include individual process steps involved with each of the subject phases. Figures 14.3 - 14.5 identify actions involving regulatory, tribal or public involvement from those actions or documents requiring specific regulatory approval. Tri-Party agreement negotiations are shown as part of the transition, S&M and disposition phases. More detailed descriptions of individual phases, actions and documentation are discussed in Sections 14.5 through 14.7.

14.5 TRANSITION PHASE

The transition phase of a facility is initiated when a formal shutdown decision is made by DOE. Figure 14.3 shows a breakdown of the activities associated with the transition phase. The numbers shown in the boxes correspond with the section numbering from this document. Discussion specific to RCRA TSD closure plan preparation and submittal is contained in Section 14.8.

14.5.1 Transition Planning

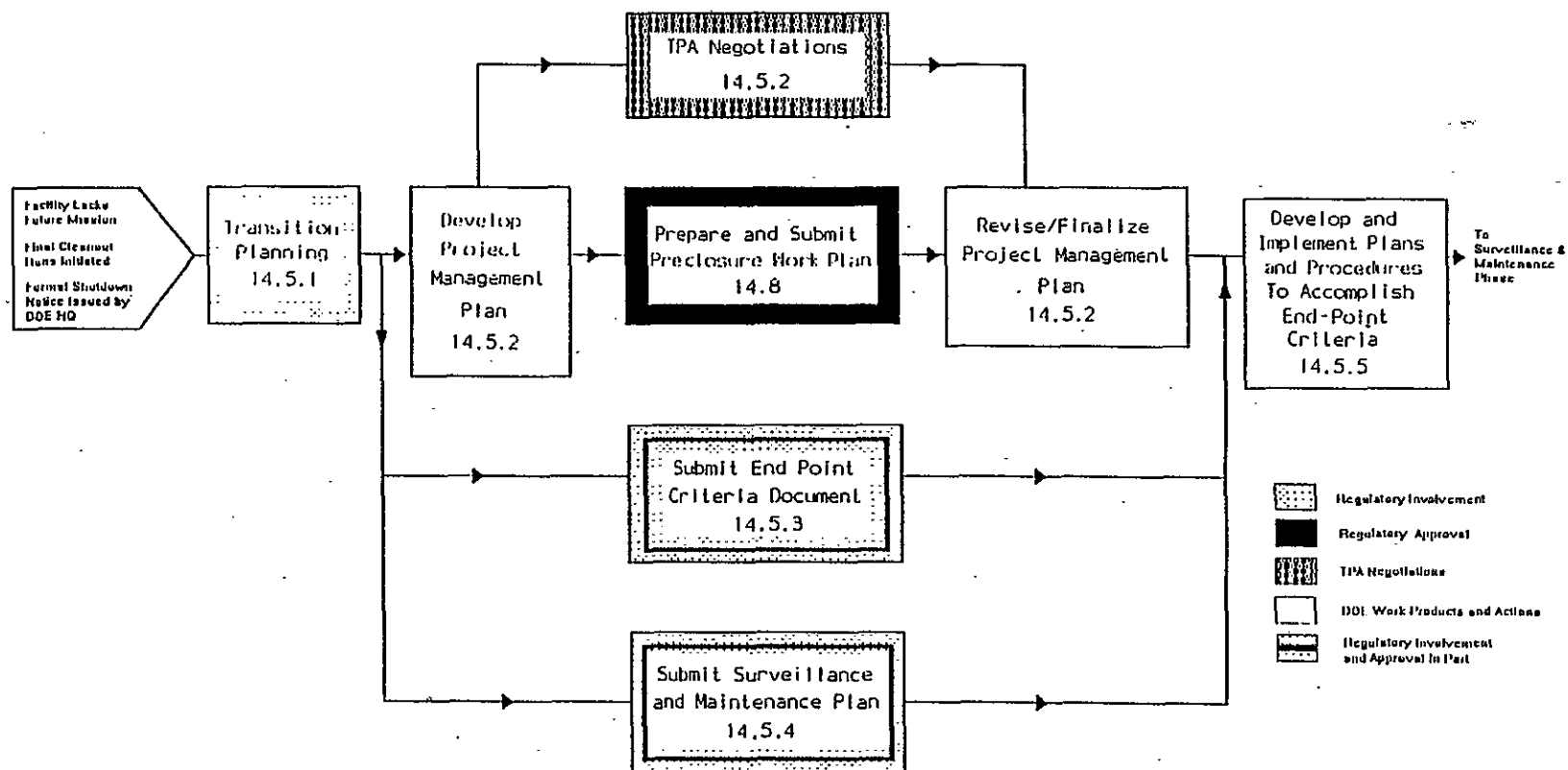
Early in the transition phase, project goals and objectives are developed in conjunction with regulatory, tribal and public input and involvement to enable a mutually agreeable and efficient transition. Vital to the success of this phase is development of transition end point criteria and S&M planning information. Transition end point criteria and S&M planning are discussed in greater detail in Sections 14.5.3 and 14.5.4, respectively. DOE will initiate discussions with regulators, tribes and public to identify issues and develop proposals within three months of an official shutdown notice decision made by DOE-HQ.

During the transition planning stage, NEPA documentation supporting transition will be initiated as necessary and a preclosure work plan or closure plan will be developed for RCRA TSD units requiring RCRA closure. Where final closure of a unit does not need to be performed in conjunction with key facility disposition, a closure plan will be submitted. Documentation produced during this stage will support protection of human health and the environment and consider waste minimization and pollution prevention opportunities.

14.5.2 Project Management Plan

The Project Management Plan (PMP) is prepared to describe how transition phase activities will be managed. The PMP contains work breakdown structures, cost and schedule information, and summarizes major project targets and TPA milestones. If necessary, a revision to the PMP will be made at the conclusion of the Tri-Party agreement negotiations to ensure consistency with scheduling agreements. The process of developing and revising the project management plan is depicted in Figure 14.3.

Figure 14.3 Transition Phase Breakdown



9513381.2080

14.5.3 Transition End Point Criteria

DOE-HQ has developed a set of generic acceptance criteria for use complex wide as a target for acceptance into the S&M phase. Based on these generic acceptance criteria, facility specific transition end point criteria are developed throughout the transition phase with intent to establish acceptable final conditions of systems (i.e., tanks, piping) and spaces (i.e., rooms, areas) at the end of the transition phase. In general, the acceptance criteria require:

- documentation for the active systems and structural integrity of the facility,
- updated permitting and documented regulatory status that reflects the shutdown, stabilized condition of the facility,
- documentation of remaining hazardous and radioactive material in the facility,
- documentation of and facility history for the shutdown systems, and
- a DOE approved S&M Plan for the facility.

The transition end point criteria are based on the EM acceptance criteria, regulatory, tribal and public input and are tailored specifically to the facility in question. Transition end point criteria will be developed and documented early in the transition phase in conjunction with discussions with the regulators, tribes and stakeholders to facilitate achieving mutually accepted criteria. Aspects of the criteria may evolve during transition necessitating revisions and refinements to the criteria.

Transition end point criteria are applicable to all facilities, and their equipment and systems accepted into a surveillance and maintenance phase. All transition end point criteria will be initially developed to incorporate regulatory, tribal and stakeholder input and values. However, regulator approval over transition end point criteria will be specific to regulated units, and/or hazardous substances proposed to remain in the facility after the transition phase is complete. Transition end point criteria will take the form of a document addressing both regulated and non-regulated equipment and systems. This document will be submitted to Ecology and EPA in conjunction with the preclosure work plan and S&M plan. Transition end point criteria will not be inconsistent with or prejudice the development of acceptable end state criteria. Changes to approved transition end point criteria will be coordinated with the regulators, and approved for changes affecting regulated units and hazardous substances that will remain in the facility.

14.5.4 Surveillance and Maintenance Plan

A surveillance and maintenance (S&M) plan is developed along with transition end point criteria since the selected transition end point criteria directly dictate actions that will be performed during the S&M phase. The S&M plan

describes the facility-specific activities to be taken in order to adequately address monitoring, maintenance and operational requirements for the essential systems at a facility. It will ensure that the facility is maintained cost effectively and in a safe, stable condition that presents no significant threat of release of hazardous substances into the environment and no significant risk to human health and the environment until final disposition is completed. Although the S&M plan evolves throughout the transition phase, focused efforts and coordination with regulators, tribes and stakeholders are emphasized early in the transition phase to facilitate a mutually agreeable approach to S&M.

The S&M plan will apply to both regulated and non-regulated equipment and systems. Although the S&M plan will be developed to incorporate regulatory, tribal and stakeholder input and values, approval of the S&M plan will be specific to regulated units and hazardous substances in the facility. Post closure care activities will be negotiated with Ecology and EPA on a case by case basis and incorporated into the S&M plan.

For facilities that contain RCRA TSD units, the S&M plan developed during the transition phase will be submitted to Ecology and EPA in conjunction with the preclosure work plan and the latest transition end point criteria document.

14.5.5 Proceed with and Complete Transition Activities

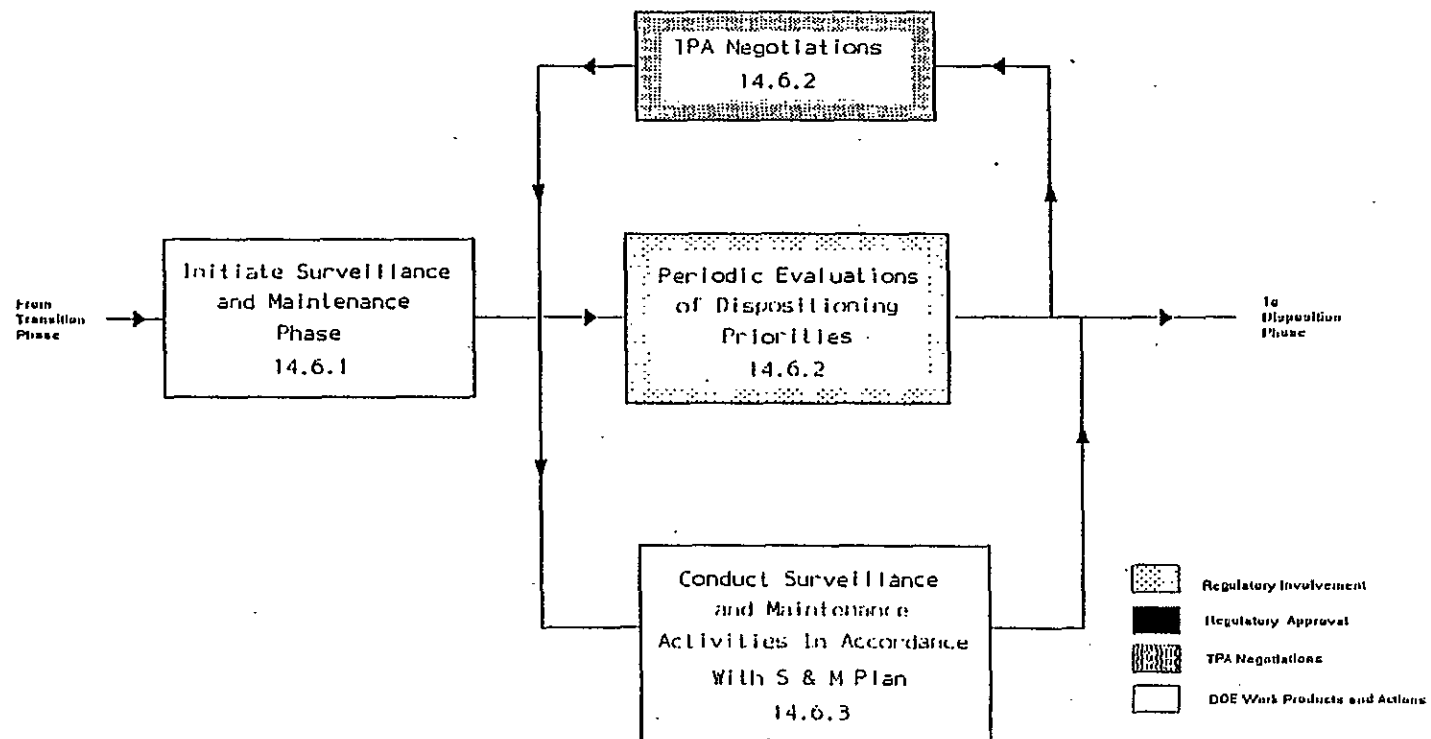
In accordance with transition planning and TPA negotiations, internal work plans and procedures are developed to aid accomplishing the facility specific transition phase tasks. Procedures provide operational guidance for the workers to achieve the objectives outlined in the facility transition planning documentation. As systems and spaces reach their identified transition end points, S&M activities are initiated consistent with the S&M plan. At the point where all systems and spaces at the facility achieve their respective transition end point conditions, the facility will await transfer to the S&M phase contingent upon verification of achievement of end point criteria (and the acceptance criteria not addressed by the end point criteria). Appropriate records documenting transition related activities will, at a minimum, be maintained through completion of the disposition phase. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

14.6 SURVEILLANCE AND MAINTENANCE PHASE

The surveillance and maintenance (S&M) phase for facilities is conducted in accordance with the S&M plan developed for each facility. The S&M phase is shown in Figure 14.4. The objectives of the S&M phase are to ensure adequate containment of any contaminants left in place and to provide physical safety and security controls and maintain the facility in a manner that will present no significant risk to human health or the environment.

S&M plans will be prepared by the facility during the transition phase and will address (1) facility surveillance (2) facility maintenance, (3) quality assurance, (4) radiological controls, (5) hazardous material protection,

Figure 14.4 Surveillance and Maintenance Phase Breakdown



(6) health and safety/emergency preparedness, (7) safeguards and security, and (8) cost and schedule. The S&M plan for S&M surplus facilities will be prepared as specified in EM-40 Guidance Documents. During the facility decommissioning process, DOE shall comply with all applicable environmental, safety and health, and security requirements.

14.6.1 Initiation of S&M Phase

The S&M Phase will start after plant operators have verified the transition end points, Ecology, EPA and DOE-HQ have received the verification, and all appropriate approvals have been made and received. Initiation of the S&M phase is shown as the first box in Figure 14.4.

14.6.2 Biennial Evaluations of Disposition Priorities

During the S&M phase, biennial evaluations of long term S&M and disposition plans and schedules will be performed. These evaluations will be performed in conjunction with the biennial reviews discussed in Section 14.3.3 and Tri-Party Agreement negotiations to identify, evaluate and assess the status of Hanford site priorities as well as tribal and stakeholder values. S&M surplus facilities will be included in the evaluation of disposition priorities.

14.6.3 Ongoing S&M Activities

Ongoing S&M activities will be conducted in accordance with the approved S&M plan and associated TPA commitments until a decision is made by DOE-HQ to initiate the disposition phase, or required by EPA and/or Ecology pursuant to the terms of Sections 14.3.3 or 14.1.

14.7 DISPOSITION PHASE

The disposition phase is envisioned to be analogous to the transition phase, initiated following a decision by DOE, or may result from a decision by EPA and/or Ecology pursuant to the terms of Section 14.1. Figure 14.5 shows a breakdown of the activities associated with the disposition phase. The numbers identified in the boxes correspond with applicable discussion below. Discussion specific to the closure plan revision is deferred to Section 14.8.

14.7.1 Disposition Phase Planning

Early in the disposition phase, project goals and objectives are developed in conjunction with regulatory, tribal and public input and involvement to enable a mutually agreeable and efficient disposition of the facility. Development of any required NEPA documentation and land usage agreements initiate the disposition phase and will be used as an aid in identifying or developing necessary disposition phase activities. A cooperative effort among all parties will be required to establish and revise disposition end state criteria to establish the conditions of facilities or facility areas at the end of the disposition phase consistent with applicable requirements and established NEPA and land use determinations. Disposition end state criteria are discussed in greater detail in Section 14.7.3. DOE will initiate

discussions with the regulators, tribes and public to identify issues and develop proposals within three months of the DOE-HQ decision to initiate the disposition phase.

14.7.2 Project Management Plan

The Project Management Plan (PMP) is prepared to describe how the disposition phase activities will be managed. The PMP contains work breakdown structures, cost and schedule information, and summarizes major project targets and TPA milestones. If necessary, a revision to the PMP will be made at the conclusion of the Tri-Party agreement negotiations to ensure consistency with scheduling agreements. The process of developing and revising the project management plan is depicted in Figure 14.5.

14.7.3 Disposition End State Criteria

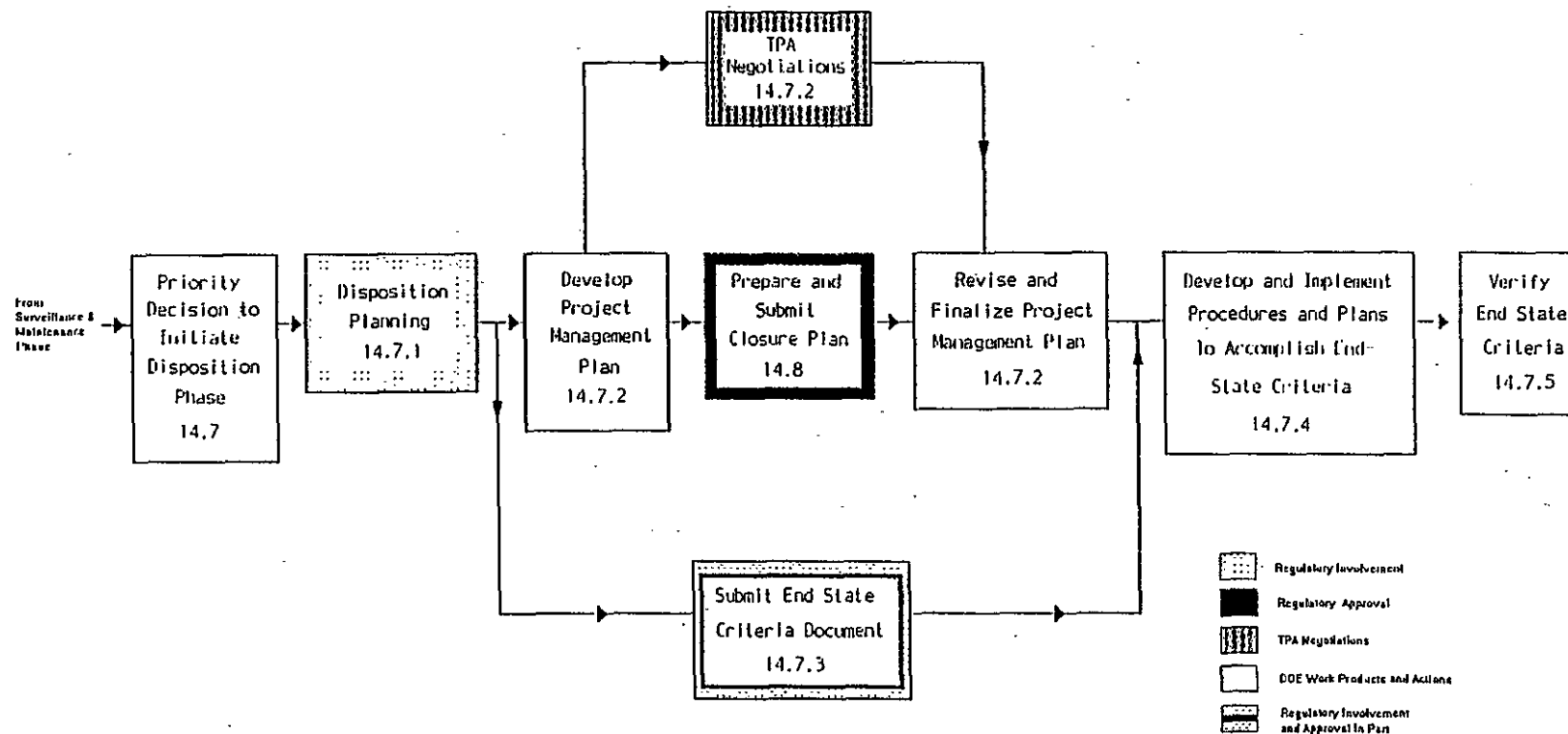
Facility specific disposition end state criteria are developed during the disposition phase with the intent to establish the ultimate acceptable condition of systems and spaces at the end of the disposition phase. Disposition end state criteria will be developed and documented early in the disposition phase in conjunction with the regulators, tribes and stakeholders to facilitate mutually acceptable criteria. However, certain aspects of the criteria will evolve during the disposition phase necessitating revision and refinement of the criteria. Aspects of the criteria that are applicable to RCRA TSD units and/or CERCLA hazardous substances shall be developed, revised or refined only with the approval of EPA and/or Ecology.

All disposition end state criteria will be initially developed to incorporate regulatory and stakeholder input and values. The disposition end state criteria will be contained in a document for both regulated and non-regulated equipment and systems. Ecology and EPA will have approval over disposition end state criteria for regulated RCRA units and hazardous substances proposed to remain in the facility. This document will be submitted to Ecology and EPA in conjunction with any necessary closure plan.

14.7.4 Proceed with and Complete Disposition Phase Activities

In accordance with disposition planning and associated TPA commitments, internal procedures will be developed to accomplish facility-specific disposition phase tasks. Identified necessary procedures provide operational guidance for the workers to satisfy the objectives outlined in the disposition planning documentation. At the point where all systems and spaces at the facility achieve their respective disposition end state conditions, final disposition is achieved and the end state criteria will be verified. Appropriate records documenting transition and closure related activities will be maintained on file. During the disposition phase DOE shall comply with applicable environmental law, safety and health, and security requirements.

Figure 14.5 Disposition Phase Breakdown



14.7.5 Verification of Disposition End State

During the closeout and verification of the disposition phase, achievement of the disposition end state criteria will be verified. DOE will perform verification surveys and samplings. Independent verification will be performed by a sub-contractor to DOE specifically retained to verify if disposition end states have been achieved. Verification will specifically tie to closure planning requirements for applicable regulated units. All verification results, regardless of the methods used, will be available to the public.

14.7.6 Integration of Disposition Phase with Operable Units

As shown on Figure 14.1, some facilities will be addressed fully in conjunction with operable unit activities under Section 7.0. These facilities are not addressed in this section. For those facilities that are only partially addressed as part of the operable unit activity, the remaining disposition phase activities will be planned and conducted under this section. This may include the management of soil contamination not accessible during the operable unit activity.

In the event facility disposition proceeds prior to the operable unit activity, the disposition of any contaminated soils and site restoration activities may be deferred to follow-on operable unit activities under Section 7.0, and not addressed in this section.

14.8. PRECLOSURE WORK PLAN AND RCRA CLOSURE PLAN

Washington's HWMA and associated regulations contained in Chapter 173-303 WAC require owners or operators of dangerous waste treatment, storage or disposal facilities to have a written and approved closure plan. DOE, Ecology and EPA have established a mutually acceptable closure plan format that is being used currently for Hanford Site closure plans. The basic closure plan format contains the following nine chapters: 1) Introduction, 2) Facility Description, 3) Process Information, 4) Waste Characteristics, 5) Groundwater Monitoring, 6) Closure Strategy and Performance Standards, 7) Closure Activities, 8) Postclosure Plan, and 9) References.

The nature of the decommissioning process has led DOE, Ecology and EPA to evaluate the timing of RCRA closure at key facilities. The phased decommissioning process combined with the requirements of NEPA and future land use determinations will often make completion of RCRA closure activities during the transition or S&M phases impracticable. In cases where timely completion of TSD unit closure is practicable, DOE will prepare, and submit to Ecology for review and approval, a complete closure plan for implementation during the transition phase. In cases where physical conditions and/or unknowns prevent timely completion of closure, DOE will prepare, and submit to Ecology for review and approval, a preclosure work plan for implementation during the transition phase. The preclosure work plan will detail actions to be completed during the transition phase in order to facilitate full RCRA closure in the future. These efforts may include removal of dangerous wastes and hazardous substances and/or removal or decontamination of equipment or

structures contaminated with dangerous wastes or hazardous substances. The content of the preclosure work plan and its relationship to the RCRA closure plan are summarized in Table 14.2. The transition phase will not be considered complete until DOE has either completed RCRA closure and/or implemented an regulatory agency approved preclosure work plan. In cases where closure is not completed during the transition phase, the S&M plan for the key facility will address RCRA compliance. It is anticipated that, for such units, RCRA closure will be conducted during the disposition phase, however, Ecology and/or EPA may, at any time, choose to accelerate closure timing and/or initiate final closure in order to assure timely protection of human health and the environment. Tri-Party agreement negotiations during the transition and disposition phases will establish TPA milestones and target dates applicable to preclosure and closure activities.

In addition to their review and approval of RCRA closure plans and preclosure work plans, EPA and Ecology will have regulatory involvement in establishing acceptable transition end point and disposition end state criteria for the facility systems and spaces. The transition end point and disposition end state criteria documents will be submitted to EPA and Ecology with closure plans and/or preclosure work plans during the transition and/or disposition phases as appropriate (e.g., if closure will occur during the transition phase, the transition end point criteria document will be submitted with the RCRA closure plan). EPA and Ecology will also have involvement in and receive an S&M plan for each key facility. The S&M plan will be developed by DOE and submitted to EPA and Ecology during the transition phase in conjunction with the transition end point criteria document and closure plan or preclosure work plan. When Approved, the S&M Plan will document hazardous substances to be left at the facility during the S&M phase.

14.9 SURVEILLANCE AND MAINTENANCE SURPLUS FACILITIES MANAGEMENT

Facilities on the Hanford Site transferred from the Operations phase to the S&M phase prior to 1992 (prior to facility transition projects) are collectively defined in this document as S&M surplus facilities.

14.9.1 Surveillance and Maintenance Phase

S&M surplus facilities are currently in the S&M phase, and will continue to be managed in accordance with the EM-40 Guidance Document and other applicable regulations. This entails using the existing S&M procedures to control day to day activities and the preparation of an S&M plan (per paragraph 14.6) to describe the overall management of the facilities until disposition phase activities commence. The ongoing S&M activities are designed to maintain the facilities in a safe and stable condition, assuring there are no significant threats of release of hazardous substances into the environment and no significant risks to human health and the environment.

14.9.2 Disposition Phase

Disposition phase schedules for S&M surplus facilities will be consistent with the approach discussed in Section 14.3. This approach will integrate S&M

surplus facility disposition phase actions with Section 7.0 operable unit remedial actions, as appropriate.

Table 14.2 Preclosure Work Plan and Closure Plan Elements *

Cpt	Description	Preclosure Work Plan Submitted During Transition Phase	Closure Plan Submitted During Disposition Phase
1	Introduction	ALL	ALL
2	Facility Description	ALL	ALL
3	Process Information	ALL	ALL
4	Waste Character- istics	ALL	ALL
5	Groundwater Monitoring	Documents the nature and extent of groundwater contamination that has occurred and describes actions necessary during the S&M phase	Documents details of groundwater investigation, necessary remediation and monitoring (may be conducted in conjunction with applicable CERCLA operable unit and RI/FS process)
6	Closure Strategy and Performance Standards	Documents the preclosure strategy, end point criteria performance standards and necessary transition phase preclosure activities. This chapter will contain a qualitative assessment of anticipated closure and postclosure outcomes, if known (i.e., clean closure or otherwise)	Remaining details including closure of secondary containment, end state of systems and material left in place, final disposition of vessels, end state of canyon structures and integration with CERCLA remedial activities. Includes cross references to surveillance and maintenance plan
7	Closure Activities	Detailed description of any closure activities and schedule(s)	Describes the remaining closure information/activities related to disposition phase
8	Postclosure Plan	Postclosure activities will be addressed to the extent known	Detailed Postclosure plan if decision is made to leave waste in place
9	References	Includes references used in transition phase of the preclosure work plan	Includes all remaining references

* Requirements of a RCRA closure plan are specified in 40 CFR 264 and Chapter 173-303 WAC, and are only briefly summarized here

All disposition phase actions will be performed in accordance with federal and state hazardous waste law, and the EM-40 Guidance Document. Disposition end state criteria will require regulatory approval if DOE proposes to leave hazardous substances in place at the facility.

Previous Section 14.0 "SIGNATURE" is renumbered as Section 15.0 "SIGNATURE".

9513381.2086

Change Number M-80-94-01	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date 1/13/95
Originator O. A. Farabee		Phone (509) 376-8089
Class of Change <input checked="" type="checkbox"/> I - Signatories <input type="checkbox"/> II - Project Manager <input type="checkbox"/> III - Unit Manager		
Change Title Establish milestones and target dates for PUREX and UO₃ Facility Transition, Milestone Series M-80.		
Description/Justification of Change <p>The PUREX/UO₃ transition project has been developed to establish a safe and environmentally secure configuration for the PUREX and UO₃ Plants, to achieve necessary preclosure actions, and to transition the facilities to the surveillance and maintenance (S&M) Phase. The transition project will remove, reduce, and/or stabilize all major radioactive and chemical sources at these plants. Completion of transition activities will result in reduced risk to plant workers, the public, and the environment. After transition is completed, these plants will continue to be routinely monitored throughout the S&M period until decommissioning and closure is completed.</p> <p>(See Attachment)</p>		
Impact of Change <p>This change request establishes a new major milestone, interim milestones, and target dates for the transition of the PUREX and UO₃ Plants.</p>		
Affected Documents <p>Hanford Federal Facility Agreement and Consent Order, Appendix D</p>		
Approvals This change form approved by Amendment Five to the Hanford Federal Facility Agreement and Consent Order executed by the signatories on July 28, 1995.		
DOE J. D. Wagoner	Date _____ _____ Approved _____ Disapproved	
EPA C. Clarke	Date _____ _____ Approved _____ Disapproved	
Ecology M. Riveland	Date _____ _____ Approved _____ Disapproved	

Milestones and Target Dates for PUREX and UO₃ Facility Transition. Continued

The decommissioning and closure process for PUREX/UO₃ will be accomplished in three phases: Phase I (Facility Transition, including TSD unit preclosure actions), Phase II (Surveillance and Maintenance [S&M]) and Phase III (TSD unit closure and facility disposition). Major and interim milestones and target dates are established to address Phase I (i.e., facility transition) of the PUREX and UO₃ Plants. At the PUREX Plant the goal of Phase I is to reduce risks to human health and the environment by removing waste liquids and spent fuel, reducing utilities to the building, and consolidating ventilation systems. Thus, Phase I will remove the need for routine personnel entry into the building and leave the facility in an environmentally sound, safe and stable configuration. Transition of the UO₃ Plant is currently underway as well. At the UO₃ Plant, activities include the removal of nitric acid solutions and residual uranium oxide powder, and flushing of piping and vessels. At the completion of Phase I, transition is complete, necessary preclosure activities have been completed and/or approved, and the S&M Phase begins. When transition is completed, it is expected that funds will be available for higher priority site environmental management activities.

During transition, interim status tanks and vessels will be emptied and/or flushed until the flush solution no longer designates as a dangerous waste. Final flush solutions will be sampled and analyzed in accordance with "Data Quality Objectives for PUREX Deactivation Flushing," WHC-SD-EN-TI-283, as approved by Ecology.

Tank inspection requirements will not be enforced on tanks and vessels that have been emptied or flushed so that flush solution no longer designates as dangerous waste. Transition activities will minimize potential threats to human health and the environment posed by wastes previously managed at the PUREX/UO₃ facilities. A Preclosure Work Plan for treatment, storage, or disposal (TSD) units within the PUREX Plant will be developed and submitted to Ecology for approval. The PUREX S&M Plan along with proposed PUREX end point criteria will be submitted as part of this preclosure work plan covering TSD units and hazardous substances that are proposed to remain at the facility. Closure of PUREX TSD units will be achieved in conjunction with facility disposition.

Throughout the PUREX/UO₃ transition project, opportunities to implement waste minimization will be reviewed and implemented to the extent practicable. Waste minimization activities that have been or are now planned as part of this project include the recycling of bulk commercial chemical products, use of the F11 concentrator to reduce the volume of waste being transferred to the Double-Shell Tanks, and minimizing the volume of liquid required for dilution of the plutonium and uranium solutions in Tanks D5 and E6 by using decontamination fluids instead of process water. These activities and others that may be identified will reduce the total volume of waste generated by approximately one million gallons that would otherwise be discharged to the DSTs. The volume of cooling water and steam condensate discharged to the ground will also be minimized and will be released in accordance with the limitations established pursuant to Consent Order No. DE-91NM-177.

The PUREX/UO₃ transition project has been developed with an eye to ensuring public participation vital to the success of this project, and in accordance with Section 10.0 of the TPA, will be achieved.

The milestones and target dates contained in this change package highlight key activities associated with deactivation of areas within the PUREX and UO₃ plants. A more complete description of these activities is contained within the PUREX/UO₃ Deactivation Project Management Plan, # WHC-SP-1011.

Establish the following milestones and target dates:

- M-80-00 Complete PUREX and UO₃ Plant Facility Transition Phase and initiate the Surveillance and Maintenance Phase. July 1998
- Completion of this major milestone includes the following key elements: (1) completion of all activities necessary to achieve end point criteria for placing the PUREX/UO₃ facilities in a safe and stable S&M mode, and (2) completion of all activities described in the following interim milestones and target actions.
- UO₃ TRANSITION
- M-80-00-T01 Issue USDOE approved End Point Criteria for the UO₃ Plant. December 1994
- End point criteria necessary to place the UO₃ facility in a safe and stable configuration will be developed, approved by USDOE, and provided to the EPA and Ecology for review.
- M-80-00-T02 Complete all UO₃ Plant Transition Activities and Initiate S&M Phase. June 1995
- Transition activities include decontaminating and removing residual uranium oxide powder to the extent possible using routine techniques. These activities will be conducted in accordance with USDOE approved UO₃ Plant end point criteria. Hazardous substances remaining in the UO₃ Plant upon completion of transition will be documented, and a letter report detailing their location, amount, state, and stability provided to EPA and Ecology.
- PUREX TRANSITION
- M-80-00-T03 Submit options and recommendations for final management of Tank 40 organic material to EPA and/or Ecology in accordance with their respective authorities. June 1995
- M-80-00-T04 Complete removal of concentrated (recovered) 203-A Nitric Acid at PUREX. June 1996
- Includes completion of the National Environmental Policy Act (NEPA) process.
- M-80-00-T05 Complete implementation of selected alternative for management of Spent Fuel from PUREX. December 1996
- Includes completion of the National Environmental Policy Act (NEPA) process. Removal of spent fuel would include retrieving approximately 260 kilograms of N Reactor fuel from the PUREX A, B, and C Cells, removing four buckets of single-pass reactor fuel from the east end of the PUREX canyon and flushing the slug storage basin.

M-80-00-T06	Complete Deactivation of the PUREX Plant 211-A Area.	April 1997
	Deactivation of the 211-A Area includes, but is not limited to, removing the chemical inventory, flushing tanks, removing tank heels, disposing of resins contained within isolated demineralizers, isolating utilities, and decontaminating/stabilizing surfaces contaminated with hazardous materials, as necessary. This target date does not include Tank-40 (see M-80-00-T03).	
M-80-00-T07	Complete Deactivation of the PUREX Plant Sample Gallery.	June 1997
	Deactivation of the Sample Gallery includes, but is not limited to, flushing headers and high radiation samplers that may pose a contamination or dose problem, decontaminating and/or stabilizing hoods containing significant quantities of special nuclear material, and decontaminating/stabilizing and/or removing hood duct work.	
M-80-01	Complete Deactivation of PUREX Plant R-Cell.	April 1995
	Deactivation of R-Cell includes, but is not limited to, removing organic solvent (TBP/NPH), flushing vessels, and sealing R cell cover blocks.	
M-80-02	Submit the end point criteria and surveillance and maintenance plan in support of the PUREX Preclosure Work Plan.	July 1996
	The PUREX Preclosure Work Plan submittal is covered under interim milestone M-20-24A.	
M-80-02-T01	Submit proposed End Point Criteria for Transition of PUREX.	June 1995
	A document identifying proposed end point criteria necessary to place the PUREX Plant in an environmentally sound, safe and stable configuration will be submitted to Ecology and EPA for review and approval for TSD units, and for the hazardous substances proposed to remain at the facility. When approved, these criteria, and the S&M Plan will become part of the preclosure work plan as applicable.	
M-80-02-T02	Submit PUREX Surveillance and Maintenance Plan.	May 1996
	A plan, including a list of hazardous substances/dangerous wastes which are planned to remain at the PUREX facility following transition and the S&M activities to occur after transition and prior to initiating final facility disposition activities, will be provided to Ecology and EPA for their review and approval as a part of the preclosure work plan for TSD units, and for hazardous substances proposed to remain at the PUREX facility.	

- M-80-03 Remove Process Waste Solutions from Tanks D5 and E6. January 1997
- Waste solutions in Tanks D5 and E6 will be removed from the PUREX process vessels and transferred to Tank Farms. In order to optimize waste minimization, decontamination solutions will be used instead of process water to dilute these solutions prior to shipment to Tank Farms.
- M-80-04 Complete Deactivation of the PUREX Plant U-Cell/Fractionator. April 1997
- Deactivation of the U-Cell/Fractionator includes, but is not limited to, removing recovered nitric acid, flushing vessels, and sealing U cell cover blocks.
- M-80-05 Complete Deactivation of the PUREX Plant Aqueous Makeup Area. June 1997
- Deactivation of the Aqueous Makeup Area includes, but is not limited to, removing the chemical inventory and flushing or emptying tanks and supply headers to canyon vessels.
- M-80-06 Complete Deactivation of the PUREX Plant Canyon. July 1997
- Deactivation of the PUREX canyon includes, but is not limited to, isolating canyon piping to external facility interfaces (e.g., Tank Farms, 216-B-3 Pond, cribs, etc.), removing spent reactor fuel, and emptying and flushing of process vessels. The flush solutions from final flushing activities will be sampled to verify that they do not designate as dangerous waste. Sampling and analysis of the final flush solutions will be performed in accordance with the data quality objectives approved in pertinent part by Ecology.
- M-80-07 Complete Deactivation of the PUREX Plant 203-A Area. April 1998
- Deactivation of the 203-A Area includes, but is not limited to, emptying and flushing tank systems, and decontaminating/stabilizing contaminated surfaces, as necessary.
- M-80-08 Document Hazardous Substances/Dangerous Wastes Remaining Within the PUREX Plant. July 1998
- Hazardous substances/dangerous wastes will remain within the PUREX Plant upon completion of Phase I activities. Hazardous substances include, but are not limited to: (1) non-dangerous waste components that are highly radioactive, (2) part of the plant structure (e.g., lead shielding in walls), and (3) intact pieces of equipment (e.g., silver reactors and cadmium moderators). The list prepared in milestone M-80-02-T02 will be updated to include any materials identified during deactivation activities not identified in the initial submittal.

Change Number M-81-94-01	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date 1/13/95				
<table style="width: 100%;"> <tr> <td style="width: 60%;">Originator</td> <td style="width: 40%;">Phone</td> </tr> <tr> <td>O. A. Farabee</td> <td>(509) 376-8089</td> </tr> </table>			Originator	Phone	O. A. Farabee	(509) 376-8089
Originator	Phone					
O. A. Farabee	(509) 376-8089					
Class of Change <div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> I - Signatories <input type="checkbox"/> II - Project Manager <input type="checkbox"/> III - Unit Manager </div>						
Change Title Establish milestones and target dates for the Fast Flux Test Facility (FFTF) transition, Milestone Series M-81.						
Description/Justification of Change <p>The FFTF transition project has been developed to establish a safe and environmentally secure configuration for the FFTF and to transition the facility to the Surveillance and Maintenance (S&M) Phase. Transition activities consist of, but are not limited to: 1) defueling the reactor, 2) dry cask storage of irradiated fuel, 3) unirradiated fuel transfer to the Plutonium Finishing Plant (PFP), 4) transfer of sodium-bonded irradiated metal and carbide fuel pins to the Idaho National Engineering Laboratory, 5) construction of a sodium storage facility, 6) sodium drain and storage, and 7) deactivation of the auxiliary systems. During these transition activities, worker and public safety will be maintained. When transition is complete, the FFTF will be in a radiologically and industrially safe and secured configuration with reduced risk to plant workers, the public, and the environment. The stored sodium will be converted to an acceptable form and either used as a product by DOE's Tank Waste Remediation System (TWRS) tank waste pretreatment process, or properly disposed. After the FFTF transition is complete, the plant will be routinely monitored until decommissioning is completed.</p> <p>(See Attachment)</p>						
Impact of Change <p>This change request establishes one new major milestone, interim milestones and target dates for the transition of the FFTF complex.</p> <p>These milestones do not impact any other Tri-Party Agreement interim or major milestones.</p>						
Affected Documents Hanford Federal Facility Agreement and Consent Order, Appendix D						
Approvals This change form approved by Amendment Five to the Hanford Federal Facility Agreement and Consent Order executed by the signatories on July 28, 1995.						
DOE J. D. Wagoner	Date _____ <div style="display: flex; justify-content: space-between;"> ___ Approved ___ Disapproved </div>					
EPA C. Clarke	Date _____ <div style="display: flex; justify-content: space-between;"> ___ Approved ___ Disapproved </div>					
Ecology M. Riveland	Date _____ <div style="display: flex; justify-content: space-between;"> ___ Approved ___ Disapproved </div>					

Milestones and Target Dates for FFTF Transition

The decommissioning process for FFTF will be accomplished in three phases: Phase I (Facility Transition), Phase II (Surveillance and Maintenance [S&M]), and Phase III (Disposition). Major and interim milestones and target dates are being established to address the transition of the FFTF. The transition activities will place the FFTF and supporting facilities in a radiologically and industrially safe condition such that they can be decommissioned at a later date. A new facility required to support the transition of FFTF is the Sodium Storage Facility. A sodium reaction facility will also be constructed to convert the sodium to an acceptable form for reuse or disposal. These new facilities will be constructed adjacent to the FFTF complex to support sodium drain operations and subsequent sodium conversion.

The FFTF complex (e.g., the FFTF, Sodium Storage Facility and Sodium Reaction Facility) will undergo a two step turnover process to Hanford's Environmental Restoration Program. The first step is the turnover of the FFTF when the final FFTF transition state has been achieved. The second step will consist of turnover of the Sodium Storage Facility and Sodium Reaction Facility at a later date, after the sodium has been converted and these facilities have been placed in an appropriate end point state. Present planning is that FFTF will be unoccupied and locked, with the exception of maintaining a minimal amount of lighting, fire protection equipment, inert gas supply to the drained sodium systems, and ventilation required to support routine surveillance. When this state is achieved, it is expected that funds will be available for higher priority environmental management activities.

Throughout the FFTF transition project, opportunities to implement waste minimization activities will continue to be assessed and implemented to the extent possible. Waste minimization activities during the project include the recycle, reuse or return to the original vendor of process fluids from the plant systems and auxiliary equipment (i.e., ethylene glycol, fuel oil, mobiltherm oil, and cooling tower chemicals). Only minor amounts of chemicals such as polychlorinated biphenyl transformer oils will require disposal as hazardous waste. An innovative approach to waste minimization and planning was implemented during the early stages of the FFTF transition project that will save significant time and resources. The milestones for reactor defueling, fuel washing, potential reuse of the bulk sodium, and accelerated construction of the Sodium Storage Facility reflect an expeditious and cost efficient approach.

The FFTF transition project has been developed with an eye to ensuring that public participation vital to the success of this project, and in accordance with Section 10.0 of the TPA, will be achieved and maintained.

Section 3.1 of the Hanford Federal Facility Agreement and Consent Order supports development of milestones and target dates to address "transition" activities at the FFTF. Establishing milestones and target dates for FFTF transition activities will result in an expeditious and cost efficient transition to a radiologically and environmentally safe shutdown condition while minimizing impacts to human health and the environment. The interim milestones and target dates identified below, reflect the actions necessary to achieve FFTF facility transition and initiate the surveillance and maintenance phase, and in most cases have been selected based on the critical path schedule for FFTF transition. The target dates correspond to actual planning dates and reflect efforts to accelerate the Sodium Storage Facility.

Establish the following milestones and target dates:

M-81-00 Complete FFTF Facility Transition and initiate the Surveillance and Maintenance phase. December 2001

This major milestone will be achieved by completion of all activities necessary to achieve the end point criteria for placing the facility in a safe and stable surveillance and maintenance mode.

M-81-00-T01 Complete Reactor Defueling. September 1995

At the completion of defueling, there will be 236 non-fueled components in the reactor vessel, 113 fueled components in the Interim Decay Storage and 258 fueled components in the Fuel Storage Facility.

M-81-00-T02 Complete transfer of irradiated fuel to dry cask storage. October 1998

The irradiated fuel assemblies and pin containers will be transferred from the Interim Decay Storage Vessel and the Fuel Storage Facility to the IEM Cell for residual sodium removal, loaded into a Core Component Container, transferred to the Reactor Service Building Cask Loading Station for placement into an Interim Storage Cask for dry storage, and transferred to the Interim Storage Area located in the northeast corner of the FFTF complex.

M-81-00-T03 Complete transfer of unirradiated fuel to the Plutonium Finishing Plant. October 1998

Thirty-two unirradiated fuel assemblies presently stored in the Interim Decay Storage Vessel will be transferred to the IEM Cell for washing and drying, loaded into existing approved shipping containers, and transferred to an appropriate storage area in the Plutonium Finishing Plant.

M-81-00-T04 Complete transfer of special fuel to the Idaho National Engineering Laboratory for consolidated storage. October 1998

Sodium-bonded irradiated metal and carbide fuel pins from assemblies cleaned and disassembled in the IEM Cell will be loaded into existing, approved shipping casks, and transported to the Idaho National Engineering Laboratory in Idaho Falls, Idaho, for consolidated storage. One unirradiated metal fuel assembly will also be dispositioned in a similar manner.

M-81-00-T05 Complete auxiliary systems deactivation. March 2001

A major portion of the plant auxiliary systems are required to support hot sodium circulation prior to draining the sodium. As these systems, and the balance of plant systems, become available for shutdown, they will be deactivated to a safe, stable condition.

M-81-01 Initiate Sodium Storage Facility Construction. February 1997

This milestone will be achieved when the construction contractor is issued the Notice to Proceed with construction by the Contracting Officer.

M-81-02 Complete Sodium Storage Facility startup.

July 1998

This milestone will be achieved by completion of the Sodium Storage Facility startup activities which include final testing of the mechanical and electrical systems and confirmation that the facility is ready to receive sodium from FFTF. Construction of the new facility closely coupled to the FFTF complex is required to support sodium drain operations. This new facility will be designed, constructed and operated in compliance with RCRA and WAC 173-303 storage requirements. The facility will provide storage capacity for the 260,000 gallons of FFTF metallic sodium coolant.

M-81-02-T01 Submit sodium disposition evaluation report/decision point.

June 1998

Complete an evaluation of the acceptable sodium product form for the TWRS tank sludge pretreatment process (i.e., caustic washing). This evaluation will be conducted in concert with TWRS TPA milestone M-50-03 (due date March 31, 1998). The FFTF evaluation will address other conversion options for disposal of the sodium if the product use for TWRS is not viable. Regardless of which option is selected, a new sodium reaction facility will be constructed adjacent to the Sodium Storage Facility to convert the bulk metallic sodium to the appropriate chemical form. This includes a decision on the final disposition of the sodium (e.g., disposal or re-use). Appropriate milestones and target dates will be established for construction and operation of the Sodium Reaction Facility based on the option selected.

M-81-03 Submit FFTF End Point Criteria Document.

December 1998

A document identifying the end point criteria necessary to place the FFTF in a safe and stable configuration will be developed. This document will be provided to EPA and Ecology for review, and approval for the hazardous substances proposed to remain at the facility.

M-81-04 Complete FFTF sodium drain.

March 2000

This milestone will be complete when all of the sodium coolant has been drained from the plant to the new Sodium Storage Facility to the maximum practical extent. The sodium residuals that remain are integral to the system, are solid in form, and adhere to the surfaces of the system components. The residuals will be maintained under an inert gas blanket to minimize potential reactions during the long-term surveillance and maintenance phase. During final disposition of the facility, any regulated wastes generated from the cleaning or dismantlement of these systems, will be appropriately managed.

M-81-04-T01 Complete Reactor and Heat Transport System sodium drain.

April 1998

The Reactor and Primary and Secondary Heat Transport System sodium coolant and supporting sodium systems will be maintained in a safe configuration, molten and circulating until the fuel is removed from the FFTF reactor vessel and the Sodium Storage Facility is operational. The sodium will then be drained to the tanks located in the Sodium Storage Facility and allowed to freeze.

M-81-04-T02 Complete Interim Decay Storage Vessel and Fuel Storage Facility sodium drain.

December 1998

The Interim Decay Storage Vessel and Fuel Storage Facility sodium will be maintained in a molten state until the fuel is removed from these storage locations. The sodium will then be drained to the tanks located in the Sodium Storage Facility and allowed to freeze.

M-81-05 Submit FFTF Surveillance and Maintenance Plan.

June 2001

A plan describing the S&M activities to occur at FFTF during the S&M phase will be developed. This plan will be provided to EPA and Ecology for review, and approval for the hazardous substances proposed to remain at the facility. This plan will include documentation of lists of hazardous substances, including dangerous waste that remain in the FFTF facility upon completion of Phase I activities because the hazardous substance: (1) contains non-dangerous waste components that are highly radioactive, (2) is part of the plant structure and/or (3) is an intact piece(s) of equipment.

M-81-06 Complete PCB Transformer Disposal.

September 2001

The nineteen Polychlorinated Biphenyl (PCB) electrical transformers at the FFTF will be disposed of after the transformers are removed from service. Twelve of the nineteen transformers, will be drained, flushed and removed from FFTF within thirty days after being removed from service as specified in 40 CFR 761. Seven of the transformers, which are in areas that are difficult to obtain access, will be drained, flushed and removed from FFTF within nine months of cessation of service to ensure their disposal within one year from the start of storage. Cessation of service constitutes the start of the storage, and 40 CFR 761 limits this storage and subsequent disposal to a one-year period.

Change Number M-83-94-1	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date 6/26/95
Originator O. A. Farabee		Phone (509)376-8089
Class of Change <input checked="" type="checkbox"/> I - Signatories <input type="checkbox"/> II - Project Manager <input type="checkbox"/> III - Unit Manager		
Change Title Establish milestones for the Stabilization of Process Areas in PFP, Milestone Series M-83.		
Description/Justification of Change The stabilization of previous process areas within the Plutonium Finishing Plant (PFP), including the Plutonium Reclamation Facility (PRF) and Remote Mechanical "C" (RMC) Line, will establish a safe and environmentally secure configuration in these areas of the facility. The major radioactive and chemical sources associated with these areas will be removed, reduced, and/or stabilized. Completion of stabilization activities will result in reduced risk to plant workers, the public, and the environment.		
Impact of Change This change request establishes new milestones for the stabilization of process areas at the PFP.		
Affected Documents Hanford Federal Facility Agreement and Consent Order, Appendix D		
Approvals This change form approved by Amendment Five to the Hanford Federal Facility Agreement and Consent Order executed by the signatories on July 28, 1995.		
DOE J. D. Wagoner	Date _____	___ Approved ___ Disapproved
EPA C. Clarke	Date _____	___ Approved ___ Disapproved
Ecology M. Riveland	Date _____	___ Approved ___ Disapproved

The negotiation commitments supporting the change to Section 3.1 of the Tri-Party Agreement in the January 1994 Fourth Amendment stated, "Although no shutdown decision has been made for PFP, negotiations for the stabilization of the PRF and Oxide Process Lines will be completed in 1994. The criteria for stabilization of the PRF and Oxide Process Lines is intended to meet the same or equal goal of transition". Subsequent to this commitment, and in response to public comment regarding National Environmental Policy Act (NEPA) issues, DOE decided to proceed with an Environmental Impact Statement (EIS) in support of such stabilization. Therefore, specific milestones for completing stabilization cannot be made until the EIS process is completed. The following interim stabilization milestones and target dates have been established and identify actions which will proceed prior to the EIS Record of Decision. Selected Interim Actions have been identified to remediate the majority of the worker safety concerns regarding continued storage of chemically reactive plutonium-bearing materials. NEPA documentation exists to cover these actions. Additional milestones will be negotiated following issuance of the EIS Record of Decision.

Establish the following milestones and target actions:

M-83-00	Complete stabilization of process areas, and other PFP cleanout actions resulting from the EIS ROD, within PFP.	Date TBD*
---------	---	-----------

Completion of the process area stabilization activities will establish a safe and environmentally secure configuration for these plant areas. The major radioactive and chemical sources associated with these areas will be removed, reduced, and/or stabilized. Completion of stabilization and other cleanout activities will result in reduced risk to plant workers, the public, and the environment. This milestone includes completion of the National Environmental Policy Act (NEPA) process.

* The three parties will enter into negotiations within two months following issuance of the EIS Record of Decision to establish milestones for implementing the Record of Decision and will complete negotiations within 6 months thereafter.

M-83-01	Submit draft Environmental Impact Statement	November 1995
---------	---	---------------

The draft Environmental Impact Statement will be submitted for public review.

M-83-01-T01	Issue final Environmental Impact Statement Record of Decision (ROD)	June 1996
-------------	---	-----------

The final Environmental Impact Statement will be completed and all applicable NEPA requirements performed, including issuance of the ROD.

M-83-02	Complete Identified Interim Actions	December 1998
---------	-------------------------------------	---------------

The currently identified interim actions as listed in the following target activities will be completed. Additional potential interim actions will be evaluated.

Additional activities, such as cleanout of PRF access bay gloveboxes, cleanout of the Remote Mechanical "A" line gloveboxes, and cleanout of a solid settling tank (tank 241-Z-361), are being evaluated for inclusion in interim action plans. A plan and schedule for these activities will be developed; milestones for any actions which extend beyond the M-83-02 milestone date will be established through subsequent negotiation.

M-83-02-T02 Complete Sludge Stabilization

December 1995

Chemically reactive plutonium-bearing sludge items (236 items) which are currently stored in gloveboxes within the Plutonium Reclamation Facility, the Remote Mechanical "C" line, and HA-23S, which have been identified as suitable for stabilization processing, will be stabilized for vault storage or disposal.

M-83-02-T03 Complete 10-L Solution Downloading

June 1996

Plutonium-bearing solutions contained in polyethylene bottles currently stored in 27 storage containers known as "10-L's" will be transferred to a safe storage configuration for use by the PFP development laboratory to test methods for stabilizing plutonium solutions.

M-83-02-T04 Complete 234-5Z Ductwork Cleanout

December 1998

Residual plutonium-bearing materials will be removed from identified exhaust ventilation ducting (two sections totalling approximately 60 meters [197 feet]) and selected process vacuum system piping (approximately 45 meters [150 feet]).

Change Number M-89-94-01	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date 3/13/95		
<table style="width: 100%;"> <tr> <td style="width: 60%;"> Originator TPA Negotiation Team Members </td> <td style="width: 40%; text-align: right;"> Phone (509) 372-1772 </td> </tr> </table>			Originator TPA Negotiation Team Members	Phone (509) 372-1772
Originator TPA Negotiation Team Members	Phone (509) 372-1772			
Class of Change <input checked="" type="checkbox"/> I - Signatories <input type="checkbox"/> II - Project Manager <input type="checkbox"/> III - Unit Manager				
Change Title Complete closure of non-permitted Mixed Waste (MW) units in the 324 Building Radiochemical Engineering Cell (REC) and High Level Vault (HLV).				
Description/Justification of Change This change package: (1) will result in the establishment of a schedule for closure of non-permitted MW units located in the 324 Building, 300 Area, Hanford site, and (2) represents a proposed compliance action necessary to correct noncompliance with chapter 173-303 WAC and 40 CFR Part 265 as cited in an Ecology voluntary compliance letter transmitted to USDOE and PNL on February 16, 1995. The approach leading to closure includes: 1) achieving compliance with interim status requirements; 2) stabilization of dispersible materials in the REC B-cell; 3) removal of liquid MW in the HLV tanks; and 4) Submittal of a closure plan under milestone M-20-55 and closure of non-permitted MW units in the 324 Building (REC B-cell, REC D-cell, and High Level Vault). (See Attachment for continuation of Description and proposed milestones)				
Impact of Change This change request establishes a new major milestone, M-89-00, to complete the closure of non-permitted MW units in the 324 Building (REC B cell, D-cell, and HLV). Interim milestones necessary to achieve compliance with interim status standards, stabilization and removal of MW, and closure of non-permitted MW storage units are proposed. These milestones impact Tri-Party Agreement milestone M-20				
Affected Documents Hanford Federal Facility Agreement and Consent Order, Appendix D				
Approvals <small>This change form approved by Amendment Five to the Hanford Federal Facility Agreement and Consent Order executed by the signatories on July 28, 1995.</small>				
DOE J. D. Wagoner	_____ Date <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved			
EPA C. Clarke	_____ Date <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved			
Ecology M. Riveland	_____ Date <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved			

Description/Justification of Change (Continued)

The REC complex of the 324 Building is designed to handle high activity radioactive wastes and materials in a research setting, with remote handling capabilities, and with appropriate shielding and unique space considerations.

A 324 hot cell restoration project (the B-Cell Cleanout Project (BCCP)) has been initiated in an effort to clean out and stabilize high activity, dispersible MW that have accumulated in the REC B-cell. Work under The BCCP will also result in the removal of MW, inactive research equipment, and other materials housed in the B-cell. Containerized MW are currently being stored in the REC (primarily in B-cell). One container of oil and absorbent from a 1994 B-cell shielded viewing window leak is stored in the D-cell. Containerized storage of high activity MW in the B-cell will continue until a technically sound pathway for storage elsewhere, and/or treatment and disposal is developed. Containerized MW storage in the REC may include waste transferred from the HLV tanks as a result of implementation of the preferred option identified via milestone M-89-01A. The (M-89-01A) report will identify the preferred option, provide planning/execution details and allow implementation of actions necessary to ensure safe handling and removal of liquid MW in the HLV tanks. Treatment and storage of HLV tank wastes in the REC will require development of an acceptable technical process and compliance with regulatory requirements.

High activity liquid MW is being stored in the 324 Building HLV tanks (e.g., TK-104, -105, -107). These wastes were originally utilized as radioactive feed materials for research and development projects conducted in the REC.

Initial assessment by USDOE of the waste management options for these materials has determined that they present difficult management challenges in that (at present) no definitive workplan for transportation, treatment and disposal, and/or long term permitted storage exists. Because of the location of the 324 building with respect to the Columbia River and the Tri-cities, the high activity of the wastes, and the dispersibility of the waste in the B-cell, these wastes pose a significant environmental, worker safety, and public health risk. These milestones have been proposed to minimize these risks in the near term, to achieve compliant management of the wastes, and to ensure long term protection of human health and the environment.

The following Milestones set the Schedule for key actions necessary to achieve compliance and complete closure of non-permitted mixed waste units in the 324 Building Radiochemical Engineering Cell (B-cell and D-cell), and High Level Vault:

M-89-00	Complete Closure of Non-Permitted Mixed Waste Units in the 324 Building REC B-cell, REC D-cell, and High Level Vault.	TBE*
	*A date will be established for this Major Milestone immediately following Ecology approval of the REC/HLV closure plan (see M-20-55).	
M-89-01	Complete removal of 324 Building HLV tank MW (e.g., TK-104, TK-105, TK-107) with the exception of residues which may remain following flushing and draining to the extent possible.	10/31/96
M-89-01A	USDOE will submit to Ecology a report identifying the preferred option for management of liquid MW in the HLV tanks.	3/31/95

Description/Justification of Change (Continued)

- M-89-02 Complete removal of 324 Building REC B-cell MW and equipment. 5/31/99
- Actions under this milestone include containment and removal of all B cell dispersible materials, excess equipment and debris. Containerized MW will be managed in compliance with chapter 173.303 WAC, thereby reducing risks to human health and the environment. Any remaining residues following removal actions will be managed through the final closure process. USDODEs' 324 building REC B cell clean-out project (BCCP) will be used as a guide for containerizing dispersible MW and removing unnecessary equipment and materials from B-cell.
- M-89-03 Achieve compliance with interim status facility standards at non-permitted 324 building MW units. 3/31/95
- Because of high radiation fields associated with MW stored in the REC and HLV tanks, alternative compliance measures for some interim status requirements are expected. In these instances USDODE will propose alternative measures for Ecology approval no later than March 31, 1995.
- M-89-04 Submit to Ecology a report identifying MW management alternatives and USDODE's proposal for achieving clean closure of the 324 Building REC B-cell, D-cell and HLV. This report will aid development of the 324 Closure Plan required by milestone M-20-55. 6/30/95
- The proposal will outline a feasible and cost effective program to achieve clean closure of the non-permitted storage units and compliant management of the MW currently stored in them.
- M-20-55 Submit closure plan for Non-Permitted Mixed Waste Units located in the 324 Building REC B-cell, REC D-cell and HLV. 12/31/95

9513381.2094

Change Number M-20-94-07	Federal Facility Agreement and Consent Order Change Control Form Do not use blue ink. Type or print using black ink.	Date 1/13/95
Originator Moses Jaraysi		Phone (509) 736-3016
Class of Change <input checked="" type="checkbox"/> I - Signatories <input type="checkbox"/> II - Project Manager <input type="checkbox"/> III - Unit Manager		
Change Title Milestone M-20-00 Modification (1994 Facility Transition Negotiations)		
Description/Justification of Change <u>Justification of Change:</u> The current M-20-00 interim milestones need revision to assure that necessary permitting, closure, or preclosure actions related to transition efforts associated with the Plutonium/Uranium Extraction (PUREX) Plant, Fast Flux Test Facility (FFTF), and Plutonium Finishing Plant (PFP) are incorporated. These transition projects will remove, reduce, and/or stabilize all major radioactive and chemical sources at these plants. Completion of transition activities will result in reduced risk to plant workers, the public, and the environment. After transition is completed, these plants will continue to be routinely monitored throughout the surveillance and maintenance (S&M) period until decommissioning and closure is completed. See attached Description/Justification of Change continued on Page 2.		
Impact of Change This change request deletes M-20-24, "Submit PUREX Part B Application or Closure Plan to EPA and Ecology by July 31, 1995" and M-20-48, "Submit the 241-Z Treatment and Storage Tanks Part B Permit Application to Ecology and EPA by May 31, 1996". This change request adds revised interim milestones for the PUREX Plant, M-20-24A, and for PFP, M-20-48A. In addition, this change request deletes M-20-29, "Submit MASF Part B to Ecology and EPA (Date TBD)," and adds a revised FFTF Milestone M-20-29A.		
Affected Documents Hanford Federal Facility Agreement and Consent Order, Appendix D.		
Approvals This change form approved by Amendment Five to the Hanford Federal Facility Agreement and Consent Order executed by the signatories on July 28, 1995.		
DOE	Date	
J. D. Wagoner		
	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	
EPA	Date	
C. Clarke		
	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	
Ecology	Date	
M. Riveland		
	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	

Justification of Change (continued):

The decommissioning and closure process for TSD units undergoing transition will be accomplished in three phases: Phase I (Facility Transition to include preclosure actions associated with TSD units), Phase II (Surveillance and Maintenance [S&M]) and Phase III (Final Closure and Disposition). The goal of Phase I is to reduce risks to human health and the environment by removing waste liquids and spent fuel, reducing utilities to the building, and consolidating ventilation systems, etc. Thus, Phase I will remove the need for routine personnel entry into the building and leave the facility in an environmentally sound, safe and stable configuration. At the completion of Phase I, transition is complete, necessary preclosure and transition activities have been completed and/or approved, and the S&M Phase begins.

An environmental impact statement (EIS) is being prepared for the shutdown and cleanout of PFP process areas and stabilization of the facility. The record of decision (ROD) for the EIS will determine if a Part B permit application is needed for the 241-Z TSD units or if closure plan (or preclosure work plan) will be developed. The completion date for this interim milestone will be December 31, 1996 to accommodate the EIS/ROD as discussed in M-83-00. For FFTF, if the sodium use for TWRS is approved, a request for procedural closure as defined in Section 6.3.3 of the Tri-Party Agreement will be submitted for the Sodium Storage Facility and Sodium Reaction Facility units. If the sodium is determined to be a waste, a closure plan will be submitted for the two units.

These transition projects have been developed to ensure that public participation vital to the success of these projects will be achieved.

2. PROPOSED M-20 MODIFICATIONS RELATED TO FACILITY TRANSITION NEGOTIATIONS:

7519981-2075

MILESTONE	DESCRIPTION	DUE DATE
M-20-24A	<p>Submit a PUREX Preclosure Work Plan to EPA and Ecology</p> <p>A Preclosure Work Plan will be submitted to EPA and Ecology for approval. It will include the proposed PUREX S&M Plan and end point criteria for approval of actions pertaining to TSD units and hazardous substances which will remain in place following transition.</p>	July 1996
M-20-48A	<p>Submit a PFP Part B Permit Application or Closure Plan to EPA and Ecology</p> <p>A Part B Permit Application or Closure Plan for the 241-Z TSD units will be developed and submitted to EPA and Ecology in accordance with their respective authorities. An environmental impact statement (EIS) is being prepared for the shutdown and cleanout of PFP process areas and stabilization of the facility. The record of decision (ROD) for the EIS will determine if a Part B permit application is needed for the 241-Z TSD units or if a closure plan (or preclosure work plan) will be developed.</p>	December 1996
M-20-29A	<p>Submit Sodium Storage Facility and Sodium Reaction Facility closure plan or request for procedural closure as defined in Section 6.3.3 of this Tri-Party Agreement to EPA and Ecology.</p> <p>A potential use for the sodium as feedstock in the TWRS Program has been identified and will be evaluated as discussed pursuant to M-81-02-T01. The sodium will be stored as product material in the Sodium Storage Facility until the final disposition of the material is determined. FFTF is proceeding on the basis of providing RCRA and WAC 173-303 compliant storage for the sodium. The Sodium Reaction Facility is included in the permit request, even though the Sodium Reaction Facility availability and regulatory status will be determined by the 1998 evaluation/decision point. If the sodium use for TWRS is confirmed, a request for procedural closure as defined in Section 6.3.3 of the Tri-Party Agreement will be submitted for the Sodium Storage Facility and Sodium Reaction Facility units. If the sodium is determined to be a waste, a closure plan will be submitted for the two units.</p>	December 1999

In addition to the above additions, add the following paragraph under M-20-00:

Preclosure Work Plans will be prepared and submitted for approval for TSD Units which will achieve closure in conjunction with the disposition of the facility in which they are contained.

Change Number A-94-01	Federal Facility Agreement and Consent Order Change Control Form <small>Do not use blue ink. Type or print using black ink.</small>	Date 1/13/95																														
<table style="width: 100%;"> <tr> <td style="width: 70%;">Originator</td> <td style="width: 30%;">Phone</td> </tr> <tr> <td>K. A. Peterson</td> <td>(509) 372-2364</td> </tr> </table>			Originator	Phone	K. A. Peterson	(509) 372-2364																										
Originator	Phone																															
K. A. Peterson	(509) 372-2364																															
Class of Change <div style="display: flex; justify-content: space-around;"> <input type="checkbox"/> I - Signatories <input checked="" type="checkbox"/> II - Project Manager <input type="checkbox"/> III - Unit Manager </div>																																
Change Title Modify Appendix A To Include Facility Decommissioning Process Terms, Update Environmental Restoration Terms, and Make Other Updates																																
Description/Justification of Change - Revise and update Appendix A of the Hanford Federal Facility Agreement and Consent Order to include the Facility Decommissioning process definitions. With attachments, there is a total of nine pages in this change package. In general, this change package: <ol style="list-style-type: none"> 1) Revises and updates the acronyms listed in the Tri-Party Agreement Action Plan, Appendix A; 2) Deletes existing definitions for Decontamination and Decommissioning (D&D) (page A-6), stabilization (page A-20), and surplus facility (page A-20) from Appendix A; 3) Updates and corrects definitions applicable to the Facility Decommissioning process and the Environmental Restoration Remedial Action Program; 4) Makes other miscellaneous changes/corrections. 																																
Impact of Change This change does not impact any other Hanford Federal Facility Agreement and Consent Order milestones.																																
Affected Documents Hanford Federal Facility Agreement and Consent Order Tri-Party Agreement (TPA), Action Plan, Appendix A.																																
Approvals <small>This change form approved by Amendment Five to the Hanford Federal Facility Agreement and Consent Order executed by the signatories on July 28, 1995.</small> <table style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 30%; border-bottom: 1px solid black;">DOE</td> <td style="width: 15%; border-bottom: 1px solid black;">Date</td> <td style="width: 15%; text-align: center;">___ Approved</td> <td style="width: 15%; text-align: center;">___ Disapproved</td> <td style="width: 25%;"></td> </tr> <tr> <td>S. H. Wisness</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="border-bottom: 1px solid black;">EPA</td> <td style="border-bottom: 1px solid black;">Date</td> <td style="text-align: center;">___ Approved</td> <td style="text-align: center;">___ Disapproved</td> <td></td> </tr> <tr> <td>D. R. Sherwood</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="border-bottom: 1px solid black;">Ecology</td> <td style="border-bottom: 1px solid black;">Date</td> <td style="text-align: center;">___ Approved</td> <td style="text-align: center;">___ Disapproved</td> <td></td> </tr> <tr> <td>R. F. Stanley</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		DOE	Date	___ Approved	___ Disapproved		S. H. Wisness					EPA	Date	___ Approved	___ Disapproved		D. R. Sherwood					Ecology	Date	___ Approved	___ Disapproved		R. F. Stanley					
DOE	Date	___ Approved	___ Disapproved																													
S. H. Wisness																																
EPA	Date	___ Approved	___ Disapproved																													
D. R. Sherwood																																
Ecology	Date	___ Approved	___ Disapproved																													
R. F. Stanley																																

TRI-PARTY AGREEMENT
ACTION PLAN, APPENDIX A, ACRONYMS

Make the following modifications to the Acronym list contained in the front of Appendix A

Add the Following Acronyms:

AAMSR	Aggregate Area Management Study Report
ADS	Activity Data Sheet
AFP	Approved Funding Plan
ALARA	As Low As Reasonably Achievable
ALE	Fitzner/Eberhardt Arid Lands Ecology Reserve
AMU	Aqueous Makeup Unit
BAT/AKART	Best Available Technology/All Known and Reasonable Technologies
BWIP	Basalt Waste Isolation Project
CAMU	Corrective Action Management Unit
DCRT	Double-Contained Receiver Tank
DOE-HQ	U.S. Department of Energy - Headquarters
DOE-RL	DOE Richland Operations Office (also known as RL)
DQO	Data Quality Objectives
DRC	Dispute Resolution Committee
D&D	Decommissioning and Decontamination
ECA	Environmental Corporation of America
EEA	Engineering Evaluation of Alternative
EE/CA	Engineering Evaluation/Cost Analysis
EM	DOE Office of Environmental Management
ER	Environmental Restoration
FDC	Functional Design Criteria
FFS	Focused Feasibility Study
GIS	Geographic Information System (used on page G-2)
GPM	Gallons Per Minute
GPS	Global Positioning System
HLW	High-Level Waste
IRM	Information Records Management
LERF	Liquid Effluent Retention Facility
LES	Liquid Effluent Study
LFI	Limited Field Investigation
LLBG	Low-Level Burial Ground
LLW	Low-Level Waste
LWDF	Liquid Waste Disposal Facility
M/S	Milestone(s)
MASF	Maintenance and Storage Facility
MB	Megabyte
MCL	Maximum Contaminant Level
MREM	Millirem
MWTF	Multi-Function Waste Tank Facility
NCAW	Neutralized Current Acid Waste
NCRW	Neutralized Cladding Removal Waste
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
NRDWL	Nonradioactive Dangerous Waste Landfill
OMB	Office of Management and Budget
OU	Operable Unit

TRI-PARTY AGREEMENT
ACTION PLAN, APPENDIX A, ACRONYMS (CONTINUED)

Make the following modifications to the Acronym list contained in the front of Appendix A

Add the Following Acronyms (continued):

PA/SI	Preliminary Assessment and Site Investigation
PCHB	Pollution Control Hearings Board
pCi/L	Pico Curies per Liter
PFP	Plutonium Finishing Plant (Z Plant)
QA	Quality Assurance
QC	Quality Control
QA/QC	Quality Assurance/Quality Control
QUAPjPs	Quality Assurance Project Plans
R&D	Research and Development
RD&D	Research, Development, and Demonstration
REDOX	Reduction-Oxidation (Facility)
RD/RA	Remedial Design and Remedial Action
RL	Richland Operations Office (DOE)
RMW	Radioactive Mixed Waste
SAFER	Streamlined Approach for Environmental Restoration
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act of 1986
SEC	Senior Executive Committee
SHMS	Standard Hydrogen Monitoring Systems
SMS	Site Management System
SWMU	Solid Waste Management Unit
TBD	To Be Decided / Determined
TCD	Tank Characterization Database
TCRs	Tank Characterization Reports
TMACS	Tank Monitor and Control System
TPA	Tri-Party Agreement
TRU	Transuranic
TRUEX	Transuranic Extraction (process)
TRUSAF	Transuranic Waste Storage and Assay Facility
TWAP	Tank Waste Analysis Plan's
TWINS	Tank Waste Information Network System
TWRS	Tank Waste Remediation System
USDOE	United States Department of Energy
USEPA	United States Environmental Protection Agency
USQ	Unreviewed Safety Questions
U.S.C.	U.S. Code
WESF	Waste Encapsulation and Storage Facility
WGL	Washington Guidance Level
WM	Waste Management

A.1 -- Add the Following Definitions to support Facility Decommissioning Process:

1. Facility Decommissioning Process: The sequential phases for a facility, once a shutdown decision is made by DOE-HQ, beginning with facility transition, through surveillance and maintenance (S&M), and final facility disposition.

2. Facility Transition Phase: A period of time during which activities necessary to place the subject facility in a safe, stable, and environmentally sound condition, suitable for an extended period of surveillance and maintenance pending final disposition are completed. Facility transition starts with termination of operations, includes the establishment of a S&M program, and ends with the achievement of facility-specific end point criteria.

These actions could include the collective conversion of the facility for potential other uses or permanent shutdown; by the removal of fuel, draining and/or de-energizing of systems, removal of accessible stored radioactive and hazardous materials and other deactivation actions to place the facility in a safe and stable condition for the surveillance and maintenance program. This phase usually involves stabilization and deactivation processes and may also include some decontamination activities necessary to effectively result in reduced S&M cost for the facility. (Note: Facility transition documentation describing end point criteria for regulated units and hazardous substances that will remain in the facility following transition will be approved by the regulators.)

3. Facility Surveillance and Maintenance (S&M) Phase: Period in the life of a facility following completion of the transition phase until such time as the facility is dispositioned for other use, or facility disposition has commenced. The S&M program provides direction, management, and performance assessments to be carried out in accordance with an approved S&M Plan. The S&M phase ensures that facilities are maintained in a safe and environmentally sound manner until a final disposition occurs. In addition, the S&M level of effort will be established in the S&M Plan to minimize the costs of final disposition (i.e. as low as economically achievable) whether the facility is planned by DOE-HQ to be released for alternate use or for dismantlement and site restoration, and/or entombment under the facility disposition phase.

4. Facility Disposition Phase: Final period in the life of a facility. This phase occurs when no future use is identified as part of the DOE-HQ facility assessment process and priority is given to proceed with disposition. This phase primarily involves processes to achieve a final end state for the facility (e.g., entombment, and/or dismantlement and site restoration), including closure of any TSDs. Facility disposition may be integrated with cleanup of past-practice units covered under CERCLA Remedial Action or RCRA Corrective Measure Authority.

5. Deactivation: Activities associated with removing facility systems and/or areas from operational service with the intent of being ready for facility transition to either convert the facility for another use or move to permanent shutdown. These activities could include the removal of fuel, draining and/or de-energizing of systems, removal of accessible stored radioactive and hazardous materials and other actions to place the facility systems and/or areas in a safe and stable condition so that a surveillance and maintenance program will be able to most cost effectively prevent any unacceptable risk to the public or the environment until ultimate disposition of the facility. (Note: These activities are usually conducted during the facility transition phase.)

TRI-PARTY AGREEMENT, ACTION PLAN
APPENDIX A, Definition of Terms Used in the Action Plan (CONTINUED)

6. Dismantlement: The process of disassembly and/or demolition of all or portions of a facility, and appropriate disposal of the residue.
7. Entombment: The remedial process to encapsulate a facility in place as a method of final disposition once cleanout has been completed.
8. Stabilization: The combination of steps or activities to secure, convert and/or confine radioactive and/or hazardous material within enclosures, exhaust ducts, and process equipment within a facility. These activities may include; removal of loose equipment items, draining process fluids to the maximum extent practicable, coating internal surfaces with a fixative coating, removal of waste materials, installing seals and blank flanges, termination of nonessential energy sources, and/or conversion of reactive residues to a stable form suitable for extended safe storage. (Note: Stabilization activities are usually performed during the facility transition phase, but may be performed before the transition phase as a best management practice for cost efficiency, as low as reasonably achievable [ALARA], and/or safety purposes.)
9. Surveillance and Maintenance: Activities conducted to assure that a site or facility remains in a physically safe and environmentally secure condition, and includes periodic inspections and monitoring of the property, appropriate contamination control actions, and required maintenance of barriers controlling access. (Note: This process continues as a best management practice through the facility disposition phase until final disposition is achieved as defined in Section 14.0 of this Action Plan.)
10. Facility (as applied to the Facility Decommissioning Process): A free-standing building, plant, laboratory, or other enclosure and associated buildings and disposal sites under its responsibility that fulfills, or fulfilled, a specific purpose, and is owned by or otherwise under the responsibility of the DOE-HQ. (Note: This usage differs substantially from that in the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] and RCRA).
11. S&M Surplus Facilities: Facilities on the Hanford Site transferred from DOE Operations to the surveillance and maintenance phase under the responsibility of EM (Office of Environmental Restoration) prior to the establishment of the EM (Office of Facility Transition). The facility decommissioning process for these special case facilities will be completed entirely under the disposition phase funded on a DOE-HQ priority basis by EM (Office of Environmental Restoration).
12. Shutdown Decision: A formal DOE-HQ documented determination that a facility is surplus (see surplus facility).
13. Surplus Facility: Any facility or site (including equipment) that has no identified programmatic use by the operating phase Program Secretarial Officer.

APPENDIX A, Definition of Terms Used in the Action Plan (CONTINUED)

14. Facility End Point Criteria (as used during facility transition phase): Facility-specific criteria prepared during facility transition planning to support development of the transition planning documentation, work plans, and ultimately the Project Management Plan (see Section 14.0). Collectively these criteria provide a technical description of the acceptable state of facility components to be achieved at the end of the facility transition phase and are prepared consistent with EM acceptance criteria objectives outlined in the DOE-HQ EM Guidance Document. This definition includes a status of how tanks, piping, rooms/areas and miscellaneous systems and equipment will be left at the end of the transition phase for a period of surveillance and maintenance prior to final disposition. (Note: End point criteria for regulated units and hazardous substances that will remain in the facility following transition will be approved by the regulators.)

15. Facility End State Criteria (as used during facility disposition phase): Facility-specific criteria prepared during facility disposition planning to support development of planning documentation, work plans, and ultimately the disposition Project Management Plan (see Section 14.0). It provides a technical description and end state of the facility or facility area to be achieved (in accordance with the NEPA process, CERCLA and/or RCRA requirements, stakeholder input, and final land use planning) at the end of the facility disposition phase.

16. Closure: Actions taken to reduce the human health and environmental threats posed by a hazardous waste treatment, storage and/or disposal (TSD) facility or unit (along with its structures and contiguous land) after the facility or unit has received its final volume of hazardous waste. Closure must satisfy applicable requirements of 40CFR Part 264, subpart G, and of WAC 173-303-610. For purposes of this Agreement, use of the word closure also includes actions necessary for the facility or unit to meet post closure requirements.

17. Post-closure: The period of care, including maintenance, monitoring, and reporting, that is undertaken at a facility or unit (e. g. landfill or impoundment closed as disposal facilities or units) after closure to ensure continued environmental safety. Post closure care must satisfy applicable requirements of 40 CFR Part 264, subpart G, and of WAC 173-303-610.

18. Data Quality Objective (as used for a planning process): The formal decision making process between the laboratory and the client that defines necessary analytical requirements based on the end-use of the data.

TRI-PARTY AGREEMENT, ACTION PLAN
APPENDIX A, Definition of Terms Used in the Action Plan (CONTINUED)

19. Containment Building (for the purposes of RCRA Interim Status Standards): A completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the units. It has a primary barrier designed to be: 1) sufficiently durable to withstand the movement of personnel and the handling of equipment within the unit and 2) operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment. (Ref. 40 CFR 265.1100)

20. Facility Startup: The time at which the Department of Energy has completed their readiness assessment and has provided the operating contractor approval via letter to start initial operations. At this time the contractor has completed their readiness review verifying that: 1) all operability tests have been completed, 2) operating procedures are available for use, and 3) a trained operating staff capable of operating the facility is in place.

21. Acceptance Criteria: A set of DOE-HQ approved criteria, as discussed in Section 14 of this document, which ensure a facility has: 1) successfully completed the facility transition phase, 2) prepared surveillance and maintenance (S&M) plan, and 3) maintained the S&M plan as a current document. As a result of meeting these conditions, the DOE Office of Environmental Restoration makes a determination of whether to accept the facility into the S&M phase (until a priority decision is made to disposition the facility).

Modify existing terms as follows:

Page A-4, definition for Administrative Record, change "removal action" to "interim response action (i.e. removal action)", unless as discussed previously the parties decide to not use IRA and only use removal action.

Page A-6, definition of Decontamination Change to read: "The process of removing radioactive and/or hazardous contamination from facilities, equipment, or soils by physical removal, washing, heating, chemical action, mechanical cleaning or other techniques to achieve a stated objective or end condition."

Page A-8, definition of HSWMUR, change "data base" to "document" or "report".

9513381 2099
TRI-PARTY AGREEMENT, ACTION PLAN
APPENDIX A, Definition of Terms Used in the Action Plan

A.2 --- Add the following definitions to support the Environmental Restoration Remedial Action Program related terms:

1. Response Action: The CERCLA processes of interim response and remedial actions. See definitions for Interim Response Action and Remedial Action.
2. Corrective Action: The RCRA processes of interim and corrective measures. See definitions for Interim Measure and Corrective Measure.
3. Remedial Action: An action taken under CERCLA authority to permanently resolve a hazardous substance release or to significantly reduce the potential for a release from a unit or group of units.
4. Corrective Measure: An action taken under RCRA authority to permanently resolve a hazardous waste release or to significantly reduce the potential for a future release from a unit or group of units.
5. Focused Feasibility Study: A study conducted such that a limited number of alternative are evaluated that are focused to the scope of the response action planned.
6. Hanford Past Practice Strategy: A strategy developed with the primary objective to develop a uniform, stream-lined process to meet statutory requirements and integrate/coordinate CERCLA RI/FS and RCRA past-practice RFI/CMS requirements through effective cleanup actions.
7. Expedited Response Action: A general term referring to either an interim response action (i. e. removal action) under authority of CERCLA, or an interim measure under the authority of HSWA.
8. Risk Assessment: An analysis of the potential adverse effects to human health and/or the environment (current or future) caused by radionuclide and/or hazardous substance releases from a site in the absence of any actions to control or mitigate these releases.
9. Skyshine: Gamma radiation emitted from a source that is reflected off particles in the air, sometimes landing several hundred meters from their point of origin.
10. Tank Waste Task Force: A group of representatives from tribal, government, business, economic development, labor, agriculture, environmental groups, and public interest groups focused on Hanford, labor, and public health. The task force was charged with providing values-relative to the Tank Waste Remediation System and with principles for the overall Tri-Party Agreement package during the renegotiations of the Tri-Party Agreement, Summer 1993.
11. Future Site Uses Working Group: A group of representatives from tribal, government, business, economic development, labor, agriculture, environmental groups, and public interest groups with interests in Hanford. The group was charged with the task of articulating a range of visions for the future use of the Hanford Site, discussion on the implications of those visions on cleanup, and probing for commonalities and convergencies within the participants' visions as they applied to cleanup scenarios and priorities.

TRI-PARTY AGREEMENT, ACTION PLAN
APPENDIX A, Definition of Terms Used in the Action Plan (Continued)

Modify existing Environmental Restoration terms used in the action plan as follows:

Page A-5. definition of CERCLA Past Practice (CPP), change "remedial" to "response".

Page A-9. definition of Interim Measure, add word "response" between "expedited" and "action".

Page A-9. definition of Interim Response Action, 1) add word "response" between "expedited" and "action", and 2) add sentence "Referred to as a removal action in the NCP."

Page A-11. definition of Remedial Action (RA), change term to "Remedial Action (RA) Phase". This is necessary, since the term remedial action represents the total process of permanent remediation.

IT IS SO AGREED:

Each undersigned representative of a Party certifies that he or she is fully authorized to enter into this Agreement and Action Plan and to legally bind such Party to this Agreement and Action Plan. These change requests and amendments shall be effective upon the date on which this fifth amendment agreement is signed by the Parties. Except as amended herein, the existing provisions of the Agreement shall remain in full force and effect.

FOR THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY:

for Charles Clarke
 Chuck Clarke
 Regional Administrator
 Region 10

7/26/95
 Date

U.S. Environmental Protection Agency

FOR THE UNITED STATES DEPARTMENT OF ENERGY:

John Wagoner
 John Wagoner
 Manager
 U.S. Department of Energy
 Richland Operations Office

7/25/95
 Date

FOR THE WASHINGTON STATE DEPARTMENT OF ECOLOGY:

Mary Riveland
 Mary Riveland
 Director
 State of Washington
 Department of Ecology

7/27/95
 Date

**THIS PAGE INTENTIONALLY
LEFT BLANK**